

OLDFIELD, PATTINSON & CO.

WHOLESALE & EXPORT DRUGGISTS,
17 TODD STREET, MANCHESTER.

Sole Proprietors and Manufacturers of the

"Silver Churn" Butter Colouring,

A purely Vegetable preparation for giving to Butter, at all seasons, a rich cowslip tint, not obtainable by other means. It is the best and cheapest preparation in the market, and does not crust or deposit like the Danish and American makes, and has the further advantage of being a Home Product. Druggists in the grazing districts will find this a very saleable line. It is sold in bottles attractively got up at

6d. 1s. 2s. 5s. size
4s. 8s. 16s. 38s. per dozen.

less usual 10 per cent. discount. Buyers of £5 worth gross value, which may be assorted to suit their requirements, are put on full wholesale terms.

For large Dairies and Druggists who prefer to bottle it under their own name, it may be had in bulk, in 1, 2, and 4 gallon bottles, and 1, 3, and 5 cwt. casks, at special prices, which will be sent on application.

THE "SILVER CHURN" ESSENCE OF RENNET.

For the preparation of Devonshire Junkets, Curds and Whey, Cheese Cakes, &c. This is always uniform in strength, and, as the above-mentioned dietary articles are growing in favour, will command a ready sale.

6d. size, 4s. per dozen; 1s. size, 8s. per dozen; 2s. size, 16s. per dozen.

TERMS AS ABOVE.

THE "SILVER CHURN" CHEESE RENNET.

A highly concentrated preparation, introduced specially for large Dairies and Cheese Factories, one tablespoonful being sufficient to curdle Twenty-five Gallons of Milk.

Sold in $\frac{1}{2}$, 1, 2, 4 gallon bottles and 30-gallon casks, at special prices which may be had on application. The attention of Druggists in the Cheese Districts is particularly directed to this article.

FLUID EXTRACT OF HERBS (Botanic Extract)

FOR MAKING HERB BEER.

This is a very superior preparation, and is meeting with great success, there being a growing demand for an article of this description during the Spring and Summer Months.

Price in 2-gallon bottles, 1s. per lb. Price bottled, 6d. size, 4s.; 1s. size, 8s.; 2s. size, 16s. per dozen.

Attractively put up with plain labels and metal capsules.

CUCUMBER CREAM AND GLYCERINE.

1s. 2d. per lb.; 1s. in Winchester Quarts. Inseparable and delicately perfumed.

APERIENT SUMMER SALINE.

1s. 4d. per lb.; 1s. 2d. in Pottle Bottles. Pleasantly flavoured and will not cake in the bottles.

CONCENTRATED SOLUBLE ESSENCES.

Prepared specially for Cordials, Aërated Waters, &c., and will mix with Water or Syrup in any proportion without turning turbid

Essence of Capsicum ...	5s. per lb., 4s. 6d. in Wr. Qts.	Essence of Horehound	3s. per lb. 2s. 6d. in Wr. Qts.
" English Hop	5s. " 4s. 6d. "	" Lemon ...	3s. 6d. " 3s. "
" Ginger ...	4s. " 3s. 6d. "	" Orange ...	3s. 6d. " 3s. "
" Ginger Ale	4s. 6d. " 4s. "		

Buyers of 12 Winchester Quarts and upwards are requested to write for a special price.

PRICE LIST WILL BE SENT ON APPLICATION WITH BUSINESS CARD.

FIRE

AT

MESSRS. CLAY, DOD & CO.'S,

52 ST. ANNE ST., LIVERPOOL.

Through some undiscovered cause, a serious fire broke out upon our premises about 10 o'clock on Sunday evening last. During the time the fire raged it was very severe, destroying the entire back portion of the buildings. Meanwhile, to facilitate business, and put our friends in the execution of their orders to as little inconvenience as possible, we have taken large and commodious premises at

13 BEAN STREET,

for the reception of Stock and forwarding orders.

Having received from our Clients, Friends, and Wholesale Houses numerous letters of sympathy and proffers of help, for which we feel deeply grateful, under the present trying circumstances, we take this medium of conveying to them our thanks, it being impossible to communicate direct with each.

Kindly note all communications, Postal or otherwise, are to be addressed as usual to

52 ST. ANNE STREET, LIVERPOOL.

Fletchers' Concentrated Liquors

THE following TABLE indicates the cost per pound of some of the principal official Tinctures made with FLETCHERS' CONCENTRATED LIQUORS:—

Name of Liquor.	@ per lb.	Streng h.	Diluted with:—	Cost of Tincture.
	s. d.			s. d.
Liquor Aconiti	8 0	I makes 8	<i>Rectified Spirit</i>	2 11
„ Aurantii	6 6	I „ 8	<i>Proof Spirit</i>	1 11
„ Belladonnæ	6 6	I „ 8	„	1 11
„ Calumbæ	6 6	I „ 8	„	1 11
„ Camph. Co.	6 6	I „ 8	„	1 11
„ Cardam. Co....	5 0	I „ 4	„	2 1
„ Cascarillæ	6 6	I „ 8	„	1 11
„ Cimicifugæ	8 0	I „ 8	„	2 1
„ Cinchonæ Co.	6 6	I „ 4	„	2 7
„ Digitalis	6 6	I „ 8	„	1 11
„ Gelsemii	8 0	I „ 8	„	2 1
„ Gentianæ Co.	6 6	I „ 8	„	1 11
„ Hyoscyami	14 0	I „ 8	„	2 10
„ Jaborandi	8 0	I „ 4	„	2 11
„ Lavand. Co....	12 0	I „ 8	<i>Rectified Spirit</i>	3 5
„ Lupuli	8 0	I „ 8	<i>Proof Spirit</i>	2 1
„ Myrrhæ	10 0	I „ 8	<i>Rectified Spirit</i>	3 2
„ Opii	9 0	I „ 4	<i>Proof Spirit</i>	3 2
„ Scillæ	6 6	I „ 8	„	1 11
„ Valerian.	6 6	I „ 8	„	1 11
„ Zingiberis Fort. ...	10 0	I „ 4	<i>Rectified</i>	4 2

Originated and exclusively prepared by

Fletcher, Fletcher & Stevenson, Manufacturing Chemists,

Offices—21 Mincing Lane, E.C.

Works—Holloway, London, N.

HOME ENTERPRISE.

With Net Profits showing a Dividend of 10 per cent. on the Preference Shares and 20 per cent. on the Ordinary Shares of the Company.

The List of Applications will open on Tuesday, June 24, and will be closed on Tuesday, July 1, 1890, for Town and Country.

SEQUAH, LIMITED

INCORPORATED UNDER THE COMPANIES ACTS, 1862 TO 1886.

CAPITAL £300,000,

DIVIDED INTO

100,000 Ten-per-cent. Cumulative Preference Shares of £1 each, and
200,000 Ordinary Shares of £1 each.

ISSUE OF 100,000 CUMULATIVE PREFERENCE SHARES AND 200,000 ORDINARY SHARES,

Of which 33,333 Cumulative Preference Shares and 66,666 Ordinary Shares will be taken by the Vendors as part payment of the purchase-money, and the balance, 66,667 Cumulative Preference Shares, and 133,334 Ordinary Shares are now offered for Public Subscription.

Payable, 2s. 6d. on Application; 7s. 6d. on Allotment; 5s. on the 1st day of August; 5s. on the 1st day of September, 1890.

DIRECTORS.

FRANCIS BENNOCH, Esq., 5 Tavistock Square, W.C.
(Member of the Council of Foreign Bondholders),
Chairman.

E. CRAWSHAW ELGOOD, Esq., 6 Crosby Square, E.C.
(Member of Lloyd's).

H. G. HEMMERDE, Esq., 15 Lee Park, S.E. (Director of the
Debenture Guarantee and Investment Company, Limited).

ALFRED RIDSDALE, Esq., 1 Collingham Road, South
Kensington (Director of the General Assets Purchase
Company, Limited).

*W. H. HARTLEY, Esq., 44 Farringdon Street, E.C.

*SIDNEY F. ISITT, Esq., 46 Holborn Viaduct, E.C.

*W. S. OLIVER, Esq., 10 Old Jewry Chambers, E.C.

* Being Members of the Original Syndicate, will join the Board
after Allotment.

BANKERS.

THE LONDON AND WESTMINSTER BANK (LIMITED),
41 Lothbury, E.C.

BROKERS.

Messrs. PERCY BROWNING & TODD, 2 Royal Exchange,
E.C., and Stock Exchange, E.C.

Messrs. HARRY JAMES & CO., 34 Corn Street, and Stock
Exchange, Bristol.

SOLICITOR.

JOHN B. PURCHASE, Esq., 11 Queen Victoria Street, E.C.

AUDITORS.

Messrs. COOPER BROS. & CO., 14 George Street, Mansion
House, E.C.

SECRETARY (*pro tem.*).—A. W. GUNNELL, Esq.

REGISTERED OFFICES.

10 OLD JEWRY CHAMBERS, E.C.

WAREHOUSES AND STORES.

44 FARRINGDON STREET, E.C.

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, JUNE 21, 1890.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—**LONDON, W.**—Old-established Good-Class Business, situate in main road; returns £800 yearly; with every facility for extending trade; profits very good; well-fitted shop and excellent stock; price £600, part of which may be paid by instalments if wished.

2.—**LONDON, N.**—Dispensing and Retail, with Post Office attached; returns from business nearly £500; post office more than pays rent; profits about £250 net; well-fitted shop and large stock; comfortable house with garden; about £400 required.

3.—**LONDON, N.W.**—Retail and Prescribing Business; returns under manager nearly £650; good prices; handsomely-fitted shop and good stock; commodious house and garden attached; about £450 required.

4.—**LONDON, N.**—Prescribing and Retail; situated in a thickly-populated locality; returns over £400 yearly, net profits nearly half; corner shop; rent low; price £350; offer considered.

5.—**LONDON SUBURB, W.**—Dispensing, Retail and Prescribing Business; returns about £550 yearly; rapidly increasing; double-fronted corner shop; good stock; comfortable house, low rental; price £450.

6.—**KENT.**—Retail and Prescribing of good class (unopposed); returns nearly £600; net profits £250; well-fitted shop and large stock, at low rental; convenient house, good garden attached; about £600 required.

7.—**SURREY.**—Retail and Dispensing Business of good class; situate in attractive locality; returns last year nearly £700, with good profits; large shop, well stocked; convenient house, &c.; about £650 required.

8.—**EASTERN COUNTIES.**—Mixed Business; returns last year £2,000, increasing; large well-fitted shop and good stock; small premium and valuation only required.

9.—**SOUTH COAST.**—Fashionable locality; Light Dispensing and Retail Business; returns under manager, £550; single-fronted, well-fitted shop and good stock; reasonable offer accepted.

10.—**OXFORDSHIRE.**—Mixed Business; Post Office attached; returns about £2,000 yearly; business capable of being much increased; well-fitted shop and good stock; reasonable offer accepted.

11.—**CATHEDRAL TOWN.**—West of England.—Very old-established Business, situate in a prominent position; returns about £1,100; Business has been held by present owner many years; easy terms to an immediate purchaser.

12.—**PLYMOUTH.**—Retail and Prescribing Business; in attractive position; returns £800 yearly; well-fitted shop and large stock; large and convenient house; about £500 required.

13.—**WEST OF ENGLAND.**—Mixed Business; returns nearly £1,300 yearly; large and commodious premises; good house and garden; about £1,100 required.

14.—**KENT.**—An opportunity offers for the transfer of very old-established Retail and Dispensing Business, with small Wholesale attached; returns last year about £1,700, with good profits; large premises; full particulars on application, with reference.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION.

Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.

ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

SALE BY AUCTION.

FOR Sale by Auction, at the Royal Hotel, Briggate, on June 24, the Shop lately in the occupation of Mr. Keith, Chemist, who has recently died; the premises have a frontage of 18 feet; large house, with every convenience. For particulars apply to 28 Kirkgate, Leeds.

SALE BY TENDER.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

DISINFECTANTS.

THE SANITARY COMMITTEE of the Commissioners of Sewers of the City of London will meet in the Guildhall of the said City, on Tuesday, the 24th day of June, 1890, at three o'clock precisely, to receive Tenders for the Supply of such Disinfectants, Chemicals, and Laboratory Appliances as may be required by the Commissioners in the ensuing year.

A List of such Disinfectants, &c., may be seen at this Office, where Forms of Tender can be obtained.

Proposals must be on the forms supplied at this Office, endorsed on the outside "Tender for Disinfectants," and delivered in addressed envelopes to the undersigned, before Two o'clock on the said day.

The Commissioners do not bind themselves to accept the lowest or any Tender.

Sewers' Office, Guildhall,
13 June, 1890.

HENRY BLAKE,
Principal Clerk.

FOR SALE.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

FOR SALE, a stock of Henry Laurance's Improved Spectacles, all kinds, all in perfect condition; retail value £32; will be sold for half the amount or reasonable offer; offer from agents invited. Write, Holmes, Chemist, Upton Park, E.

WINE Trade Speciality, showing 250 per cent. gross profit; annual turnover £1,000; stock optional; plaut almost nil; goodwill, trade marks, valuable testimonials, trade secrets, showcards, &c., and everything necessary to carry on the business; about £200; good reasons for selling. H. L. Price, Accountant, 79 Mosley Street, Manchester.

TO CHEMISTS FITTING UP.—Drawers, Counters, Show-cases and Carboys, &c.—For sale, one 12-ft. range new mahogany drawers, with plate-glass labels and knobs, £9; one 12-ft. ditto, pine drawers, gold labels and glass knobs, £6 12s.; one new bent tooth-brush case, 25s.; three 3-gallon, 9s. 6d.; four 4-gallon, 12s.; and three 6-gallon carboys, 15s. 6d. each; 180 show rounds and jars, gold-labelled, £9; plate-glass counter show-case, 36 x 18, 35s.; 6-ft. dispensing-soreon, mirror centre and marble slab, £5 10s.; ditto, new design, £7 10s.; good bent-front brush-case, 21s.; mahogany wall case, 60 x 47, 55s.; 24 2-lb. blue jars, labelled, 36s.; 12 3-lb. ditto, 24s.; 12 4-lb. best pink ditto, labelled, 5s. each; 6-ft. bent-front case, good secondhand, £4 10s. R. Tomlinson & Sons, Medical Fitters, Bond Street, Birmingham.

F. J. BRETT,

VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.

LANCASHIRE.—Returns £1,700; General Retail, Prescribing and fair Dispensing; price £800.**LONDON, W.**—Returns £700; no booking; Retail, Dispensing, and Prescribing; price £340.**YORKSHIRE.**—Light Retail and Prescribing; returns under assistant £600; price £350.**HULL.**—Returns £300; price £120; illness cause of sale.**MIDLANDS.**—Light Retail and Prescribing; returns £350, increasing; fully one half net profit; large and productive garden, nearly pays rent; unopposed.

Mr. Brett has buyers of good-class Businesses, returning £1,000 to £2,000. Vendors can at once be supplied with cash buyers.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

ADVERTISER, giving up business, has a small Retail for disposal on favourable terms for cash. Address, O. O., care of Mrs. Webb, 44 Birdett Road, E.**SCARBOROUGH.**—Retail to be sold cheap; good position; satisfactory reason for disposal; portion sublet, leaving rent nearly nil. Humphries & Co., Chemists, Bradford.**GENUINE** Chemist's and Druggist's Business for disposal; present proprietor 42 years; retiring to the country; trade might be doubled by an energetic young man; price £300. Apply at 65 Old Street, E.C.**CHEMIST AND DRUGGIST'S BUSINESS**, handsomely fitted, in densely populated locality; through exceptional circumstances will be transferred for price of fixtures. Apply, 6 Loudon Road, Southwark. A personal interview solicited.**LONDON, N.**—Light Retail, Prescribing, and Dispensing Business, in healthy and increasing neighbourhood, to be sold cheap to an immediate purchaser; shop nicely fitted; owner retiring from business. Apply in first instance to R. F., 8 Hawkesley Road, Stoke Newington, N.**GENUINE** Retail, Dispensing, and Prescribing Business for immediate sale in S.E. London district; cash business; returns between £1,300 and £1,400; good house, very low rent; no reasonable offer refused; cash only. X. Y., care of Messrs. Meggeson & Co., Miles Lane, E.C. Principals only.**ON** the South Coast; a profitable Retail and Dispensing Business; returns £650; net profit over £300; rent £55; convenient house, and ground behind; well-stocked; good reasons for selling; references, required; price £650. "Arnica," Messrs. Hodgkinson, Preston & King, Bishopsgate Street.**GENUINE** Light Retail and Dispensing Business for disposal, situate in one of the busiest thoroughfares in Birmingham; returning about £400; rent £24; short lease; satisfactory reasons for disposal; about £200 required. Address, Q. R. S., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**LONDON, W.**—Old-established Business in main thoroughfare; doing under management £710s., could be easily increased by personal attention; handsome corner shop, well fitted; good house, over half rent let off; house and shop in thorough repair; cash price £300. R. O., 33 Bessborough Gardens, S.W.**A DISPENSING** and Prescribing Business, with Branch, in thorough working order, with well fitted shops; unopposed; returns last year over £800, this year promise to be £930; fair prices obtained. For particulars, apply by letter, to K. O. B., care of 31 Thurlow Hill, West Dulwich. Agents need not apply.**HARROW.**—Exceptional opportunity for pushing business young man; established seven years; first-class fitted shop, convenient house, private entrance, good garden; price, including goodwill, fixtures, stock, utensils, &c., only £100; long lease; rent £35. G. Williams, Bridge Pharmacy, L. & N. W. R., Harrow.**THOMAS TOMLINSON & SON**, 9 New Cannon St., Manchester, have for disposal Chemists' Businesses in Blackpool (branch), about £200; St. Helens, about £200; Bradford, about £100; Birmingham, about £500; Nottingham, about £1,100 to £1,200, with Wines and Spirits; Stalybridge, about £550; and several others.**MIDLANDS.**—Country town.—For immediate disposal an old-established Light Retail Business; returns over £300, capable of increase; good opening for Dentistry; good house and premises, with garden; every investigation allowed. 99/37, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**FOR DISPOSAL**, in good business town in North Midlands (population 15,000), a well-established Mixed Country Business, with a little local Wholesale, which may be much increased by energetic man; returns £1,100 per annum at good profit; two proprietary articles; lease 12 years' unexpired at low rental; excellent lock-up roomy premises, within 50 yards of market place; price £850. *bona fide* purchasers apply in first instance, "Chemist," 118 Loudon Road, Southwark, S.E.

GRIMWADE, RIDLEY & CO.,

WHOLESALE DRUGGISTS & VALUERS,

IPSWICH.

Immediately, in a market town in Suffolk, a genuine Business; old established and in good working order; no opposition within four miles; present returns £920; price £1,000; this forms a splendid chance for a good business man.

In a Watering-place in Essex an old-established Business; present returns only nominal, in consequence of want of capital, but can be largely increased by any business man with moderate means, as there is no opposition for some miles; price, stock and fixtures by valuation.

Re BARKER, GREAT YARMOUTH.

Under a deed of assignment in order to realise quickly, the Trustee is prepared to sell the stock by valuation, subject to discount as arranged, or open to an offer; the rent is low, and fixtures can be hired or purchased at the option of the purchaser.

In rising Watering-place on East Coast a rapidly improving Business; returns last year £650; price £500; rent £50, half of which can be returned by letting in the season.

FOR TERMS AND PARTICULARS APPLY AS ABOVE.

BUSINESSES FOR DISPOSAL—Continued.

MIDLANDS.—Suburb of large town.—Light Retail Business, returning £700, to be sold for about the value of stock and fixtures; £450 required; no cutting, good profits, working expenses very low; investigation courted. For further particulars apply to "Pepsine," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**25 MILES** from London.—Unopposed good-class Retail, Dispensing, and Prescribing Business in an attractive locality; good house, large flower and kitchen gardens, greenhouse, &c.; rent £30; same hands 20 years; returns £900, full prices obtained; price £500. J. E., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**WHALLEY**, Chemist, Hollinwood, near Manchester, has for sale his old established Drug premises, carried on by him for nearly 30 years; large house, private entrance, double fronted shop, stable, warehouse attached; in the very centre of busy and rising population; price for premises, £1,000; stock and fixtures, valuation; stock low; retiring.**OWING** to exceptional circumstances, Chemist will sell for third of their value splendid fittings and York Glass Co.'s bottles, with trade utensils and small saleable stock, or as a going concern; capital opening for dentist; either is an exceptional bargain, and well worth immediate attention. 74/64, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**HOME** County.—Unopposed Retail and Dispensing, with a little Stationery and valuable Agency; returns over £700; net profits quite £300; price £50 goodwill; the stock and fixtures at a valuation, about £500; a portion of the purchase money may be paid by instalments. M. B., care of Messrs. Heaton, Squire & Francis, 38 Southwark Street, London, S.E.**£1,500 RETURNS.**—Death vacancy; South Midlands; unopposed Mixed Country Business, returning £1,500; well fitted heavily stocked; good house, garden, warehouse; will sell either by valuation or lump sum; about £300 required; must be sold at once. Full particulars from "Exors," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**YORKSHIRE**—Large manufacturing town.—Good-class Mixed suburban Business; cash returns £1,100; small credit, full prices; rent £55; let off £15; unusually excellent premises, amid foliage, gardens, ground, and stable; present hands 10 years; established 1868; vendor retiring; about £800 required. "Onyx," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.**THOMAS TOMLINSON & SON**, Chemists' Valuers, Arbitrators, &c., 9 New Cannon Street, Manchester, have for disposal an excellent profitable Chemist's Business, in a good manufacturing town, about 8 miles from Manchester; returns £800, which might be much increased, as will be shown; best situation in the town and nearest to stations; ill-health of active partner and dissolution of partnership sole cause of disposal.**FOR SALE**, Wholesale and Retail Chemist's and Druggist's Business; established half century; large dispensing trade, high class; good and saleable stock; important and commodious shop and premises, well fitted, at low rent; situate in centre of town, on borders of populous works district, and fine country; or proprietor would take a partner (qualified). Principals only, 69/27, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

TO WHOLESALE DRUGGISTS, RETAIL CHEMISTS, DRYSALTERS, AND OTHERS.

TO be SOLD by PRIVATE TREATY, that old-established Business, carried on for many years by the well-known firm of Messrs. Grimley & Son, of Northgate Street, Chester. Full particulars of the same can be had on the premises, or from Messrs. Roose, Mahon & Howorth, Chartered Accountants, 25 North John Street, Liverpool. Terms cash.

TO LET.

SHOP to Let; best position on Elswick Road, Newcastle-on-Tyne, suitable for chemist. Apply, John C. Hope, Elswick Road, Newcastle.

BUSINESSES WANTED.

A BONA-FIDE Dispensing and Retail Business; London, or within 50 miles; net profit not less than £300 per annum. Particulars, in strict confidence, to W. G. Christmas, Easton House, Freshwater, Isle of Wight.

£5 will be paid for information where there is a good opening for a Chemist. Please state population of town and all necessary information to X. Y. Z., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, in nice part of South of England, a genuine Business yielding a profit of about £250 to £300; must bear fullest investigation; references exchanged. Apply, in first instance, to "Antipyrin," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

PARTNERSHIPS.

WANTED, a Partner with £1,000 to £3,000, for developing a good Business in full working order; medical apparatus; large profits; will bear the strictest investigation. Only principals need apply, by letter, to H., care of Letts Brothers, 8 Bartlett's Buildings, Holborn Circus, E.C.

PARTNERSHIP.—Wanted immediately by the proprietor of a well-established business, a Partner (or Manager with view to above) to assist in acquiring the only other business in an agricultural and manufacturing town in the Midlands; returns about £700; excellent opening for a qualified and competent man, good Prescriber, &c.; the connection being principally Wesleyan, a member of that denomination preferred; about £450 required. Apply to "Carboy," care of Messrs. Baiss Brothers, Jewry Street, E.C.

THE Proprietor of a Provincial Wholesale Drug Business, with several thriving specialties, and trading with Chemists throughout Great Britain, is compelled through rapid increase of business to look out for help in the management, and would be glad to correspond with a gentleman of Christian character and thorough business habits, with a view to partnership on equal terms. Strict confidence guaranteed and expected. Address in first instance, enclosing references, to "Camphor," care of S. Lambert & Co., 132 Fenchurch Street, London.

APPRENTICESHIP.

A. N. KERSHAW, Family Chemist and Optician, Keighley, has a vacancy for an indoor apprentice; every opportunity given for acquiring thorough knowledge of the business under personal supervision; moderate premium; references exchanged.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

MINOR qualification; quick and accurate Dispenser. Apply, by letter only, J. S. care of Baiss Bros., Jewry Street, E.C.

JUNIOR Assistant wanted for the season, from the end of June or beginning of July until the end of September or October. F. Keall, Ilfracombe.

WANTED a qualified Assistant; no night or Sunday work; state salary required. Apply, Philip Harris & Co. (Limited), Wholesale Chemists, Birmingham.

A QUALIFIED Assistant, well up in Dispensing; short hours and no Sunday duty. Apply to the Manager, Drug Department, 105 Victoria Street, Westminster, S.W.

TRAVELLERS calling on Grocers, Oil and Colour Men, and Chemists (town and country), who can take an extra Commission, should apply B. W. F., Observer Office, Lancaster.

IMMEDIATELY, qualified, competent Senior Assistant, aged about 26, for good Dispensing and Retail business. Apply, with particulars Deacon & Hewlett, Beckenham, Kent.

IMMEDIATELY, qualified Assistant, outdoor; quick and good Dispenser. Usual particulars, age, height, salary, and references, photo if possible, to Jenkins, Beeston, Notts.

WANTED, Assistant (indoors); Minor qualification; about 24; good Dispenser and Salesman; if able to extract teeth, preferred; comfortable permanency; hours 8 to 8, one evening off weekly; full particulars, giving references, stating salary required, and enclosing photo (to be returned); two kept. Cowan, Chemist, Star Hill, Rochester.

DISPENSER and Bookkeeper wanted in beginning of July for high-class private practice 10 miles from London; free house, rates, taxes, gas, and water; qualified Chemist; middle-aged; married, without family, and one seeking permanency preferred. The strictest inquiries will be made as to capabilities, steadiness, and trustworthiness. Apply, in writing in the first instance, stating age, experience, how last employed, salary expected, and giving three references as to character, to X., care of General Apothecaries' Company, 49 Berners Street, London, W.

WANTED, an able and trustworthy man as Confidential Clerk in a provincial Wholesale; must be used to correspondence and general office work, and have sufficient knowledge of the trade to help principal in the management of the business; might have to travel occasionally; highest references as to character and ability essential. State experience, age, salary required, and all particulars in first letter. This would be a permanent situation to a suitable man. Address, in first instance, "Energy," care of Horners & Sons, Wholesale Druggists, Mitre Square, London.

QUALIFIED Assistant (outdoor); knowledge of French preferred. Apply, by letter, stating salary required, experience, &c., H. Cooper, 21 Greek Street, W.

WANTED, immediately, an Assistant (out), about 24; total abstainer. Apply, with full particulars, enclosing photo, which shall be returned, to T. E. Pearce, Chemist, Tavistock.

TO Parents and Guardians.—An old-established Dental Surgeon has a vacancy for a Pupil; exceptional advantages. L.D.S. Eng., &c., care of T. J. Brown, Esq., Solicitor, 14 Cockspur Street, W.

FOR Japan.—Qualified English Assistant; about 25; first-class London experience and references indispensable. Apply by letter to Dakin Bros., Creechchurch Lane, Leadenhall Street, London, E.C.

A QUALIFIED Dentist desires to meet with Chemists, within twelve miles of London, who would enter into an arrangement for him to visit on Commission. Address, 119 Goldhawk Road, London, W.

FOR second week in July, Senior Assistant, qualified, indoor, aged 28 to 35, for first-class Dispensing business; two kept; salary liberal and progressive. W. Plaister, 13 Gledhow Terrace, South Kensington.

WANTED, a competent Assistant (indoors) accustomed to first-class Dispensing and Retail; not under 23 years of age. Apply, stating full particulars, to "West-end," care of Edwards & Son, Queen Victoria Street, E.C.

A N Assistant (indoors), Minor qualification, who has been accustomed to a good family trade; must be a good dispenser. Apply, stating salary, age, and full particulars, to J. P. Provost, Pharmaceutical Chemist, Huntingdon.

WANTED, at once, a Junior Assistant, qualified, for Light Retail; indoors; comfortable home; two evenings per week off. State reference, age, and usual particulars to J. B. Humble, Frogmore Street, Abergavenny.

WANTED in a Light Retail Chemist's business in London, as indoor assistant (single); good references required. State age, salary required, and previous experience (by letter), to H., The Lodge, Barnard's Inn, Holborn.

IMMEDIATELY, a good Junior, aged not under 21, accustomed to a good-class Retail and Dispensing. Apply, stating salary required (indoors, sleep out, room found), age, height, reference, last employer, enclosing C. D. V., to John Lea, Folkestone.

WANTED, at once, first-class Assistant as Manager, with a thorough knowledge of the Drug Store business; must be smart at counter, and good window-dresser. State age, height, and reference, with photo, to Mason & Co., 80 King Street, South Shields.

WANTED, immediately, Qualified Manager for Branch, with or without view to succession; good Prescriber. Apply, with full particulars, stating salary &c., enclosing references, which must bear strictest investigation, to Naish, Chemist, Weymouth.

LOCUM-TENENS, with view to permanency; must be thoroughly well up, Mixed trade with Prescribing, Teeth-extracting, &c.; references, wages required, with photo if convenient, will oblige. "Chemicus," Harker, Stagg & Morgan, 15 Laurence Pountney Lane, London E.C.

WANTED, immediately, competent, thoroughly trustworthy Manager, for small country business; qualified; single; age about 40; salary moderate; must be an abstainer. Apply, with full particulars, and enclose photo, Mrs. Hall, High Street, Kelvedon, Essex.

A N Assistant (indoors), aged about 22, for Branch establishment at New Elham. Apply by letter in first instance, giving full particulars and salary required, to Lockyer Bros., Chemists, 208 High Street, Deptford, S.E. Applications not answered in three days, declined.

TRAVELLERS required to work on commission a novelty in the shape of a new sanitary article, which will be extensively advertised and have a ready sale, to call on all chemists through the United Kingdom. For particulars address Remmer, 11 Hatton Garden, London.

QUALIFIED Assistant, indoors, about 23, of good appearance and address, capable of taking occasional charge, and accustomed to good-class country trade; liberal salary and permanency to good business man; short hours. Full particulars, with photo, to E. Bing & Son, Canterbury.

AGENTS wanted in town and country by an old-established firm to take orders for their Lubricating and Cylinder Oils, Carriage and Cart Greases, Solidified Oils and Creams, Belt Syrups and Boiler-scale Composition; liberal commission. J. L. Wads & Co. (Limited), 307 Bndett Road, London, E.

MANAGER wanted for permanency; young man, fully qualified; market town, South of England; unmarried; indoors; must be reliable, active, energetic, and obliging, good Extractor and Prescriber. State age, experience, and salary required, with photo, to "M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

WANTED, a Qualified Assistant, to take charge of good Mixed country business four days a week and to travel two; must be well experienced and pushing man, with first-class references; one seeking permanency and possessing northern counties experience preferred; salary to begin, £120. Apply, with references, to J. McCall White, Wigton, Cumberland.

WANTED, Manager, about 30 (qualified); must be reliable, energetic; obliging, and a good Prescriber; good references indispensable. Also Junior Assistant, about 18; must be active and energetic, and of agreeable manners. Apply, stating age, height, and salary required, with photo, to J. & J., care of Messrs. Goodall, Backhouse & Co., White Horse Street, Leeds.

TO Analytical Chemists.—Wanted, for one or two months, to act as locum tenens, a thoroughly qualified Brewery Chemist, not under 30 years of age. Applicants must have had complete training and extended experience in brewery analytical work, and in replying forward also copies of testimonials. Apply, by letter only, to Gravity, Box No. 4, Post Office, Five Ways, Birmingham.

WANTED, a reliable Assistant; Minor; indoors; aged 25 to 30. "Chemist," 4 T-bayer Street, Manchester Square, W.

ASSISTANT wanted for about 2 months; outdoors. Apply, with full particulars, enclosing photo, to J. Brown & Son, Obemists, Ripon.

WANTED, for six weeks, from July 7, an Improver or Junior (Indoors). Apply, stating full particulars, to W. R. Obantler, Newport Pagnell.

WANTED, an Assistant for three months. Apply, stating age, height, salary required, and enclosing photo, to J. Burton, Chemist, Llandudno.

WANTED, Junior, not over 22 years; half-holiday weekly. State age, height, and enclose photo, with reference, to "Chemist," 42 High Street, Crewe.

WANTED, Junior Assistant; indoors; must be quick and accurate Dispenser; one only kept. Apply, with full particulars and photo, to W. E. Haines, Chemist, Hereford.

IMMEDIATELY, as Dispenser, an Assistant (outdoors); good references indispensable. Apply, with full particulars, to Hobson, St. Ann's Pharmacy, Buxton, Derbyshire.

WANTED, an Assistant, about 26; good Dispenser and business habits. Stating references, salary, &c., apply to S. O. Fumston, Pharmaceutical Chemist, High Wycombe.

WHOLESALE DRUG TRADE.—Wanted, a Junior Invoice Clerk; quick at figures. Apply, by letter, to C. R. Harker, Staggs & Morgan, 15 Laurence Pountney Lane, E.C.

CHEMIST ASSISTANT.—Active experienced Drug Assistant wanted; state age, salary expected, with testimonials, references, and where last employed. Galorath, Londonderry.

AN Assistant, about 21 years of age; accustomed to a country business. Apply, stating age, salary, experience, with reference, to H. Barton, Pharmaceutical Chemist, St. Ives Hunts.

IMMEDIATELY, Junior Assistant; used to country trade. Apply, stating age, height, salary required (indoors), references, and enclosing carte, to Smart, Pharmaceutical Chemist, Steyning, Sussex.

WANTED, Junior Assistant (outdoors), for a Light Retail and Dispensing business. Apply, stating age, height, salary required, and full particulars, to M. Laxon, Market Place, Faversham, Kent.

A QUALIFIED Assistant to manage a Branch; about 24; indoors; one able to Extract Teeth preferred. Apply, stating age, height, salary, and references, to T. H. Ness, Chemist, Torquay, Devon.

AT once, an energetic Junior of good address and character; indoors; total abstainer. Apply, stating age, height, experience, with fullest references, enclosing photo, to James Lees, 217 High Street, Watford.

IMPROVER or Turnover wanted, for pushing Retail business; must be active, obliging, and well recommended. Apply, stating age, salary required (outdoors), experience, &c., to Fresson, Queen Street, Burslem.

WANTED, Immediately, for permanency, a qualified Assistant as Senior for good Dispensing business in pleasant suburb of London; salary £55 (indoors). Apply, with particulars, S. F., care of Messrs. Cullen & Co., South Norwood, S.E.

WANTED, a Junior or Improver of gentlemanly address; good time allowed for study; applicants by letter might please enclose photo, and give particulars of age, salary required, references, &c. W. G. Blackham, 675 Holloway Road, N.

IMMEDIATELY, an Assistant, about 22 years of age, for first-class Light Retail; centre of town; comfortable home. State height age, salary required, &c., and enclose photo (to be returned), to Robert Watts, Pharmaceutical Chemist, Fargate, Sheffield.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

ASSISTANT, Dispenser, Extractor, fair Prescriber; aged 23; unqualified. E., Banwell, Somerset.

AS Dispenser and Bookkeeper to surgeon; aged 19; good references F. R. Pearson, 87 Westboro', Scarborough.

LOCUM-TENENS; qualified; varied experience; aged 40; disengaged. Address, William Paterson, General Post Office, Edinburgh.

AS Senior or Manager (outdoor); aged 28; first-class experience; Minor. "Pinns," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR, aged 20, 4½ years experience in Wholesale and Retail, requires situation in City Wholesale; good reference. Apply to 64 Shacklewell Lane, Hackney.

M. R. S. SMITH, Bristol, takes Confidential Management during absence or illness, or Branch; varied experience. Present address, 25 The Britton, Devizes.

WHOLESALE or Retail; outdoor; experienced in Allopathy, Homoeopathy, and Photography; good references; 9 years' experience. P., 166 Shepherd's Bush Road.

AN Analyst desires a situation; has worked for two years in the Pharmaceutical Society's Laboratory; willing to commence at a small salary. Address, A. J., 17 Bloomsbury Square, W.C.

AN Analytical Chemist, of over 15 years' experience, desires an appointment; disengaged about the middle of July. Address, "Fidells," 4 Lynton Road, Crouch End, Hornsey, London, N.

ENGLISHMAN (18) would like employment in an office; good knowledge of Russian, German, and bookkeeping; a fair draughtsman. Address, H. A. F., 48 Trinity Square, Brixton, S.W.

JUNIOR or Dispenser; outdoors; good experience. Baxter, Mensbrook Bank, Sheffield.

SENIOR; disengaged; 28; good experience. Manley, 6 Ballantine Street, Newton Heath, Manchester.

LOCUM-TENENS (or good permanency), qualified. "Chemicus," 57 Princes Square, Kennington, London.

DISPENSER, Locum-Tenens, Sealer, or Manager; qualified; well experienced; disengaged. "Omega," 287 Hackney Road.

GERMAN Pharmacist; fair knowledge of English; good references; no salary required at first. R. R., 31 Bedford Place, W.C.

TEMPORARY or otherwise, Chemist or Surgeon, by competent man; 40; tall; disengaged. A. B., 64 Bramber Road, West Kensington.

DRUG and Druggery (wholesale).—Young man (21) seeks situation as Assistant; good references. Apply, Mercer, 153 Sber.ock Street, Birmingham.

STUDENT wants Part-time situation with Chemist or Surgeon; near classes preferred; good references. Chapman, Liawood Road Market Rasen.

MANAGER or otherwise; aged 50; qualified and registered; active, steady; good reference. N. M., Central Temperance Hotel, Long Lane, London.

ADVERTISER wants situation as Invoice or Shipping Clerk; 14 years' trade experience, also a knowledge of Spanish. M. P., 73 Allen Road, N.

ASSISTANT, in or near London; over 4 years' experience; some knowledge of Mechanical Dentistry; aged 20. Apply, "Tincture," 7 Bruce Grove, Tottenham.

A JUNIOR, of good address, for a light Retail at Ramsgate; apartment and attendance found, but not board. Apply, with photo, stating age, salary, reference, &c., to Mr. Parry, Bexley Heath, Kent.

WANTED, by a thoroughly experienced person, a situation as Assistant to a Medical Man or Chemist; would accept small salary. Address, A. R., care of Evans, 61 Chandos Street, Covent Garden.

LOCUM-TENENS or permanent Manager; best-class Dispensing, Family, and Agricultural business; thoroughly competent; Major qualification; disengaged 27th instant. M. P. S., Mr. Dobson, Chemist, Skipton, Yorkshire.

YOUTH (19½), who has passed Apothecaries' Hall Examination, wishes to place himself with a Chemist till of age. State premium required to D. A., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MISCELLANEOUS.

WOODEN TANKS, suitable for chemical or colour works; 10 ft. by 7 ft. 10 in. by 4 ft. deep, 17 ft. 6 in. by 8 ft. 9 in. by 4 ft. deep, 7 ft. by 5 ft. 6 in. by 3 ft. deep; several smaller backs and open tubs; also 50 or 60 vats, sizes various. David Roberts & Son, Vat and Back Makers, Tottenham, London.

THE PHARMACEUTICAL MINOR.—Chemists' Assistants and Apprentices coached for the Minor by a new and practical course of training by correspondence, the thorough and conscientious study of which will enable the Student to present himself in the Examination Room with confidence. For particulars send stamped addressed envelope to W. Field, Rotherfield, Tunbridge Wells.

PRELIMINARY AND MINOR.

ALL Students who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. Student's Herbarium, 100 specimens, 7s. 6d., post free.

STUDENTS' AIDS TO EXAMINATION.

PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Caesar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. MINOR.—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemist," care of Mr. J. Edwards, Wye, Kent.

GLYCERINE & CUCUMBER, First Quality, 9d. per lb., by using

Rouse's Concentrated Cucumber Paste.

In Jars (free), ½ lb. 2s. 3d.; 1 lb. 4s. 3d. net. Making 3 lbs. and 6 lbs., costing 4d. per oz., by simply adding Water and Glycerine.

Thro' any Wholesale House, or post free for P.O.

ROUSE & CO., 12 WIGMORE ST., LONDON, W.

PROSPECTUS.

This Company has been formed to acquire and further develop the well-known business now carried on by a private registered Syndicate under the title of "Sequah (Limited)." The operations of the Syndicate have extended over a period of fifteen months, the business having previously been conducted by Mr. W. H. Hartley, who, being desirous of transferring it to a public Company for the purpose of further development, assigned his rights to the present Vendor Syndicate, which was formed with a view to practically test the commercial value of the remedies before inviting subscriptions from the general public. The remarkable results of the Syndicate's trading are seen in the highly satisfactory certificate of the Accountants, given below.

TRADE OUTGROWN AVAILABLE WORKING CAPITAL.

Under the management of the Syndicate, the business has been rapidly extended, with the result that at the present time it is found necessary, in order to cope with the exigencies of an enormous and growing trade, as also to establish the business in countries to which the Syndicate has, as yet, not been able to devote any attention, to largely increase the working capital and to provide a more extensive personnel than the Syndicate is able to command.

GREAT WEALTH DERIVED FROM PATENT MEDICINES.

It is well known that a patent medicine, when fully established and recognised as an efficacious remedy, is a most valuable property. This is a fact which has been demonstrated by Holloway, Warner, and many others, with whose names the world is familiar.

The Directors feel confident that there is not at the present time a patent remedy which, judged by the steadily-increasing sale and results, offers an equally substantial investment or equally assured prospects as are offered by the Sequah Prairie Flower and Sequah Oil.

BUSINESS NOT THE RESULT OF UNBIQUitous ADVERTISEMENT.—
TESTIMONIALS.

When it is borne in mind that the Vendor Syndicate, contrary to the general practice of proprietors of patent medicines, has, by means of the particular system it employs, been enabled to reach the masses of the people without the enormous expense of universal journalistic advertisement, the present extensive proportions of the business may be taken as a fair criterion of the efficacy and popularity of the remedies, which, moreover, are vouched for by very numerous testimonials, not only from patients, but also from clergymen of all denominations.

Before the Syndicate acquired the property, "Sequah" was represented by one person only, but it afterwards became necessary to increase the working staff, and a number of capable men were selected and specially trained for the purpose of introducing the medicines. These representatives have for some time past been working with great success, and have largely increased the sale.

GREATLY INCREASED DEMAND FOR SEQUAH REMEDIES.

The increase in sales from May, 1889, to May, 1890, has been remarkable, the number of bottles sold, as shown by the books, being as follows:—

	June, 1889	
During the months of July, "	.. ..	247,343
August, "	.. ..
September, "	.. ..
" " October, "	.. ..	354,817
" " November, "	.. ..
" " December, "	.. ..
" " January, 1890	.. ..	398,845
" " February, "	.. ..
" " March, "	.. ..
" " April, "	.. ..	457,697
" " May, "	.. ..

Reaching the large total of .. 1,458,702 Bottles.

The following is a copy of the certificate of Messrs. Cooper Bros. & Co., the well-known chartered accountants, who have examined the books of the Syndicate:—

CERTIFICATE OF MESSRS. COOPER BROS. & CO.

14 George Street, Mansion House, London, E.C.,
July 11, 1890.

We have examined the books of the business carried on under the name of "Sequah, Limited," for the twelve months ending 31st May, 1890, and we find that the net profit has been £44,584 12s. 9d. We have also ascertained, by examining each quarter separately, that the sales and the net profit have steadily and largely increased in each quarter. The profits of the quarters, taken separately, have been approximately as follows:—

	Profit for the Quarter	At the rate per Annum of
Quarter ending 31st August, 1889 ..	£8,951 4 9 ..	£35,804 19 0
" " 30th November, 1889 ..	10,814 9 9 ..	43,377 19 0
" " 28th February, 1890 ..	11,822 15 6 ..	47,291 2 0
" " 31st May, 1890 ..	12,966 2 9 ..	51,864 11 0

The whole of the outlay on advertising has been charged against the profits, and full provision has, in our opinion, been made for depreciation of plant.

COOPER BROTHERS & CO., Chartered Accountants.

It appears from the above certificate that during the last three months the net profits have been at the rate of over £50,000 per annum. Having regard to the Company's increased resources, the above profits actually certified may be taken as a minimum estimate, and would yield a dividend as follows:—

DIVIDEND FROM PRESENT AMOUNT OF PROFITS.

£100,000 Preference Shares of 10 per cent.	£10,000
£200,000 Ordinary Shares of 20 per cent.	40,000
	£50,000

Investors must take into consideration that even the estimated dividend of 20 per cent. does not exhaust the full profits now actually being earned by the Syndicate, and as these have been steadily on the increase since the commencement, it is fair to assume that much larger dividends will accrue.

FUTURE DIVIDENDS ESTIMATED TO BE MUCH LARGER OWING TO:—

A.—SALE OF NEW REMEDIES.

Whereas, up to the present the Syndicate has confined its operations to the sale in the United Kingdom of the two remedies, Prairie Flower and Sequah Oil, only, the Company will also acquire several other proprietary articles, which may be profitably put on the market and energetically pushed through the Syndicate's Agencies already established, and as these do not in any way clash with the goods now being sold, they may be easily introduced to the Syndicate's present connection, and should therefore provide an important addition to the Company's business without appreciably increased expenditure.

B.—GREATLY-EXTENDED FIELD OF OPERATIONS.

The Company will, moreover, have the means of extending its operations to the continent of Europe, and other parts of the world, where, in view of the populations which may be approached, it may reasonably be expected that the profits should at least equal those already obtained in this country. The population of the United Kingdom is only about 38,000,000, whereas that of the European continent alone reaches the enormous aggregate of over 300,000,000.

Negotiations, with a view to commence business in Austria and Russia, have already been started by one of the members of the present management. Taking the course of business in this country as a precedent, the Directors confidently anticipate that, under the same management, within reasonable time from the establishment of the Company the results obtained from the Continental business will add very considerably to the Company's profits.

WORKING CAPITAL.

The Company will commence with ample working capital; and retain the present staff and management, which have worked with such unqualified success for the Vendor Syndicate.

PURCHASE PRICE.

The business will be taken over as from the 1st of June, 1890, up to which date the Vendor Syndicate will pay all outgoings and liabilities. The price to be paid for the same as a going concern, including the valuable trade marks goodwill, extensive stock-in-trade, and the lease of premises, 44 Farringdon Street, E.C., has been fixed by the Vendor, who are the promoters, at 250,000 .. payable as follows:—150,000l. in cash, 33,333l. in fully-paid Cumulative Preference Shares, and the balance, 66,666l., in fully-paid Ordinary Shares in the Company, the Vendors thus taking the largest number of Shares permitted by the Rules of the Stock Exchange. Thus 50,000 Shares are available for issue as working capital, being the difference between the purchase price and the capital of the Company.

NO PROMOTION MONEY TO BE PAID.

No promotion money has been or will be paid, the Vendors agreeing to defray all expenses up to the first allotment of Shares, including brokerage.

CONTRACTS.

The following Contracts, relating to the sale of the business, have been entered into:—

A Contract, dated June 19, 1890, between Sequah, Limited, and William Loomis Sheldoa of the one part, and Sequah, Limited (being this Company), of the other part, and another Contract, dated June 19, 1890, between William Henry Hartley of the one part, and Sequah, Limited (being this Company), of the other part.

A copy of the above Contracts and of the Memorandum and Articles of Association can be seen at the office of the Company's Solicitor.

Contracts have been entered into for bringing out the Company, to none of which the Company is a party, and there are also other Contracts which have been made in the ordinary course of business in relation to the carrying on of the same, including agreements with employers and others. As these may technically be Contracts within the meaning of Section 38 of "The Companies Act, 1867," applicants for Shares shall accept the above as notice thereof, and waive any further compliance with such section.

STOCK EXCHANGE QUOTATION.

A Stock Exchange settlement and quotation will be applied for in due course.

APPLICATION FOR SHARES.

Applications for Shares should be made on the Form accompanying the Prospectus, and forwarded to the Company's Bankers, together with a remittance for the amount of the deposit. Where no allotment is made the deposit will be returned in full. If the whole amount applied for by any applicant be not allotted, the surplus paid on deposit will be appropriated towards the sum due on allotment.

Prospectuses and Forms of Application can be obtained at the Offices of the Company, and from the Bankers, Brokers, or Solicitor.

THE LIVERPOOL SCHOOL OF PHARMACY, 24 NEWINGTON, LIVERPOOL.

Principal—Mr. J. S. WARD, Ph. Ch., F.C.S., &c.

PASS LIST FOR APRIL.

MAJOR.

Mr. C. F. SYMES, Liverpool (first attempt).

MINOR.

Mr. G. E. O. CAVE, Bowdon Mr. W. LYON, Keith
" F. BATES, Allendale " A. H. NASH, Sleaford
" C. H. GRAHAM, Liverpool " T. THOMAS, Llandilo

Four of these passed at their first attempt.

Syllabus, Pass Lists, Fees, &c., sent free on application to the Principal.

"CONCILIO ET LABORE."

THE MANCHESTER COLLEGE OF PHARMACY, 225 & 227a OXFORD STREET, MANCHESTER.

Established 1877.

Manchester, 1882.

Director, Mr. W. SPENCER TURNER, Pharmaceutical Chemist.

The next Session will begin on September 1st, and will include the usual courses of Full-time Afternoon, Evening, and Once-a-Week Classes in the subjects required in the Minor and Major Examinations. Each set of classes has its own time-table and is distinct from all others. The fees are moderate and inclusive. All work is done under Mr. Turner's superintendence, and every possible means is employed to maintain the high name which the M. C. P. holds for

THOROUGHNESS and SUCCESS.

New Prospectus sent free on application.

ESTABLISHED 1842.

THE SCHOOL OF PHARMACY

Of the Pharmaceutical Society of Great Britain.

Chemistry, Prof. DUNSTAN, M.A., &c.

Practical Chemistry, Prof. ATTFIELD, F.R.S., &c.

Botany, Prof. GREEN, B.Sc., &c. Materia Medica, Mr. E. M. HOLMES, F.L.S. Practical Pharmacy, Mr. JOSEPH INCE, F.C.S., &c.

FORTY-EIGHTH SESSION, 1889-90.

Application for admission to the School, for Prospectuses, or for further information or advice may be made to the Professors or their Assistants in the Lecture Room or Laboratories, 17 Bloomsbury Square, London, W.C.

PRIZE MEDAL, PARIS EXHIBITION, 1889.

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Including SPERMATORRHOEA, PROSTATORRHOEA, IMPOTENCE, and STERILITY in Both Sexes.

By M. K. HARGREAVES, M.D.

Assistant Physician to St. John's Hospital for Diseases of the Skin.

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LONDON HOMOEOPATHIC HOSPITAL AND MEDICAL SCHOOL, GREAT ORMOND STREET, BLOOMSBURY, W.C.

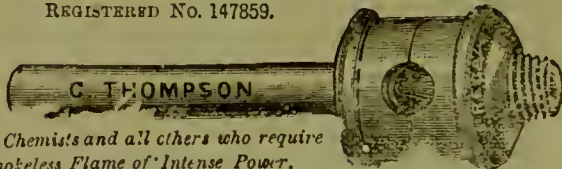
President—THE LORD EMBURY. Chairman—MAJOR WM. VAUGHAN MORGAN.

Contains 90 Beds, and being entirely supported by Voluntary Contributions, Donations and Annual Subscriptions are earnestly solicited. The Hospital is always open to the inspection of visitors, and Clinical Instruction is given in the Wards and Out-patient Department to Medical Students and Practitioners. It possesses a valuable Library of Homoeopathic Publications, which Medical Men are invited to study. They are also invited to visit the Dispensary. The In-patients number over 700 annually; the Out-patients nearly 9,000 annually. The number of patients treated since the inauguration in 1849 exceeds 215,000. It has a staff of Nurses for Ward Nursing and Nursing Invalids at their residences.

G. A. CROSS, Secretary-Superintendent.

CHAS. THOMPSON'S ATMOSPHERIC GAS JET.

REGISTERED No. 147859.



For the use of Chemists and all others who require a Small Smokeless Flame of Intense Power.

EXCLUDE AIR.—An ordinary ILLUMINATING FLAME is obtained.

ADMIT AIR.—For Sealing Wax purposes this BUNSEN FLAME is most useful; the impression produced from a seal is a far better colour than it is possible to produce with an ordinary gas-jet.

ADMIT FULL QUANTITY OF AIR.—For Soldering purposes this powerful BLOWPIPE FLAME is invaluable to Jewellers, Dentists, and others.

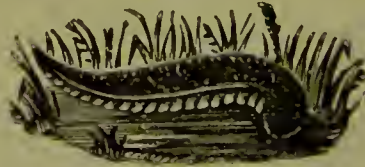
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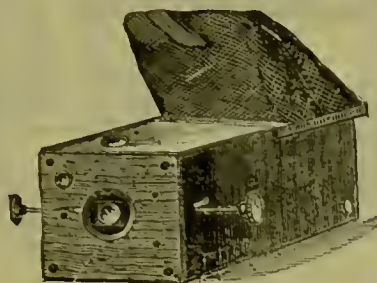
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Fig. 13.

PORTABLE HAND CAMERA,

In polished walnut wood, size $2\frac{1}{2}$ by $3\frac{1}{2}$ by $5\frac{1}{2}$ inches, with rapid wide angle lens and improved view finder, will take a series of twelve instantaneous views $3\frac{1}{2}$ by $2\frac{3}{4}$ without focussing or replenishing; total weight 19 ounces. Portraits, groups, and views can be taken moving or standing; price complete, with lens, shutter, view finder, and 12 metal plate-holders in cloth-bound case (Fig. 13), **£1 5s.**

Specially prepared extra rapid sensitized plates for above, 12s. per gross. Printed instructions with each camera.

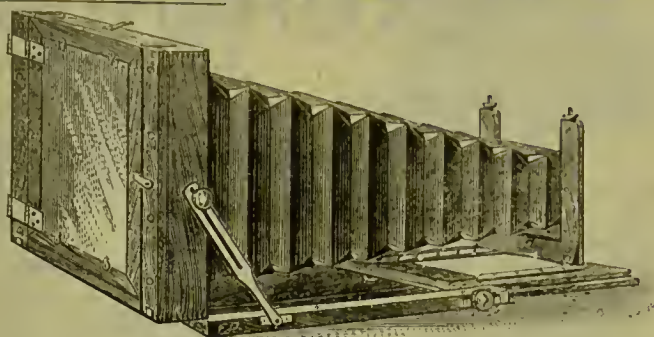


Fig. 14.

DARTON'S IMPROVED DOUBLE EXTENSION LONG FOCUS CAMERA.

Of polished mahogany, with 3 double backs, rack, and pinion adjustment, swing back and front, no loose parts, light, strong, and durable (Fig. 14).

$\frac{1}{2}$	1	10 by 8 Plate.
75s.	95s.	120s.

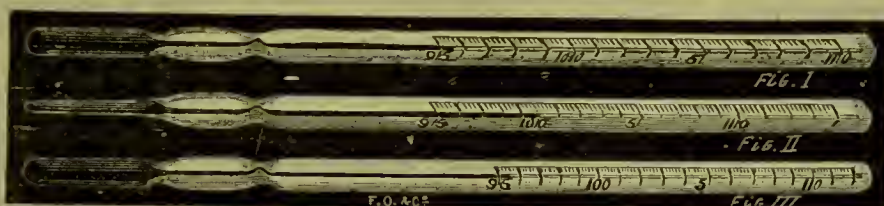


Fig. 16.

DARTON'S STANDARD CLINICAL THERMOMETER.

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Chemist and Druggist, from beginning weekly issue, 1885, with *Diaries*, complete, clean copies, 20s.; "Hooker's Botanical Illustrations," coloured plates, bound, 8s.; "Hill's Herbal," 1812, coloured plates, fine condition, half calf, 6s. Macdonald, Chemist, Newington, Edinburgh.

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Fittings of chemist's shop, bottles, carboys, &c.; good condition and cheap. Townsend, Chemist, Long Sutton.

Drawers.—One nest of 26 mahogany-fronted drawers, with gold labels price 35s; measures about 2 ft. 6 in. square. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Combined bent and upright plate-glass showcase similar to Maw's fig. A 4; length 4 ft., width 20 in., height 38 in.; movable shelves and silvered glass backs to open; cheap. Lowe, Chemist, Norwich.

Bent-glass counter-case as Maw's A18, good as new, 6 feet long, price 5l. 10s.; also nests of drawers, dispensing-screen, bottles and fittings for chemist's; great bargains. Philip Josephs, 54 Old Street, Goswell Road, London, E.C.

Counter, as Maw's Fig. 61A, 6 by 2 ft.: desk and case, as Maw's Fig. A 32, or separately; 1889 English poppy-heads, to clear, any quantity, 4s. 1,000; fine Turkey sponge, grand little bits, most would sell for 6d., 1s. per dozen; A. Davis's large penny packets brass-powder, 5s. per gross. Elliott, Chemist, Bedford.

Cheap second-hand fittings.—7 ft. 6 in. nest 48 drawers, deal, stained mahogany; also 4 ft., 20 drawers, mahogany fronts; both solid easings, fitted with lockers, shelving over; also wall-case, stained, 4 ft. 6 in. by 4 ft., on uprights, cupboard beneath, 2 ft. 6 in. high; mahogany upright counter-case, 2 ft. 6 in. C., 193 Knight's Hill, West Norwood.

For sale.—11 ft. run of mahogany-fronted drawers, glass knobs, and gold labels, with cupboard at end made of dummy drawers, also labelled and knobbed, making entire length 16 ft., with lockers under, coverboards, shelving, uprights and cornice complete for £10 10s. the lot; good second-hand 16-ft. mahogany counter cheap; several others from 4 ft. to 16 ft.; plate-glass-fronted counters any length, at low prices; dispensing-screen, as A51, 4 ft. and 5 ft. long, as A55, 6 ft., 7 ft. 6 in., 8 ft. cheap; dispensing-screen, with plate-glass centres and cases at each side, with tablet on top, "Dispensing Department," from 5 ft. to 8 ft.; wall-cases, 4 ft. long, 6 ft. long, and 8 ft. long, cheap; wall-case, as A86, with plate-glass cupboards under, 9 ft. high, 3 ft. wide, 5l. 10s.; 3 ft. ditto, with mahogany cupboard under, 4l. 15s.; pink ointment-jars, specie-jars, a handsome pair (the royal arms and the pharmaceutical arms), gilt brass covers to each, and gilt stand 35 in. high, a bargain; and 3 carboys, 30 in. high, cheap; pill-machines, dispensing-scales, mortars, &c.; all at low prices, at Elkanah Natalis, 207 Old Street, Shoreditch End, near County Court, London, E.C.

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Pharmaceutical Journal, about 50 vols.; also hand-mill. What offers? Green, Christchurch.

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Dispensing-scales, brass pillar, mahogany stand and drawer, glass pans, chain slightly damaged (by Avery), 7s. 6d. 106/13.

Bicycle, Kangaroo pattern, new last year, cost 15l., sell 7l., warranted complete and perfect. Kittle, Queen Street, Horsham.

Good tricycle, scarcely used; will take drugs, saleable patents, cases, &c., in exchange.

Offers to "Cycle" 39 Fore Street, Bodmin. 2 Astley Cooper's vital restorative, 4s. 6d. size; 6d. each in brass boxes; 1 dozen 13s. 6d. kopica; Bailey's sulphur. Orchard, Salisbury.

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Job lots of mineral-water and other bottles; 100 gross split lemons; 50 gross 10-oz. square dark coffee extracts; 30 gross cherry brandy quarts; what offers to clear? 85/61.

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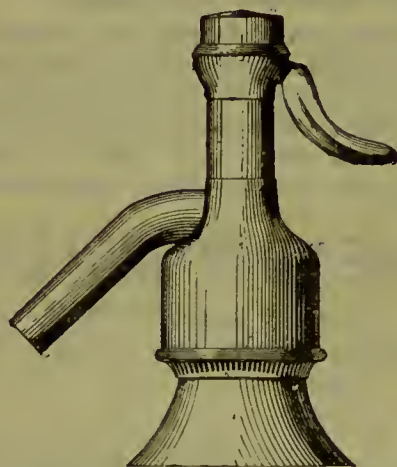
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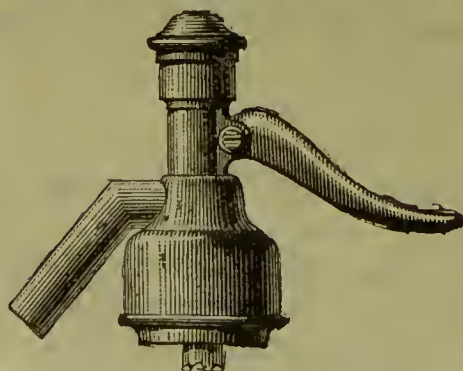
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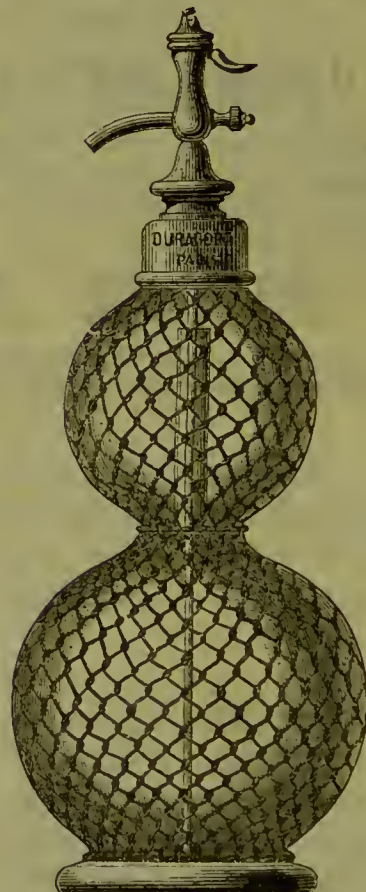


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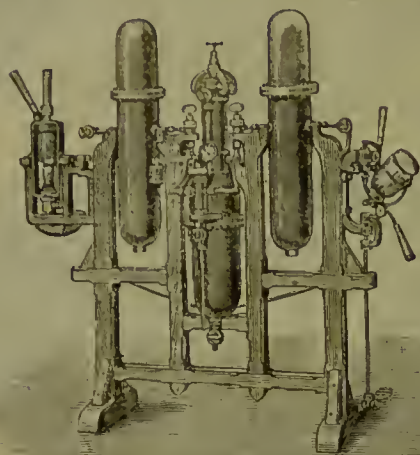
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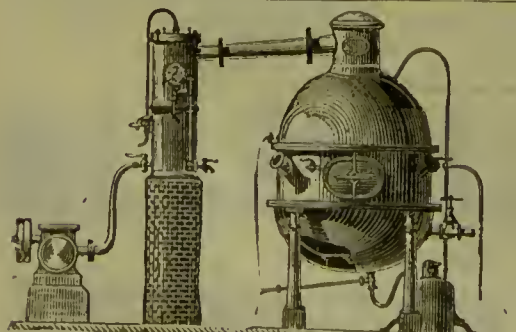
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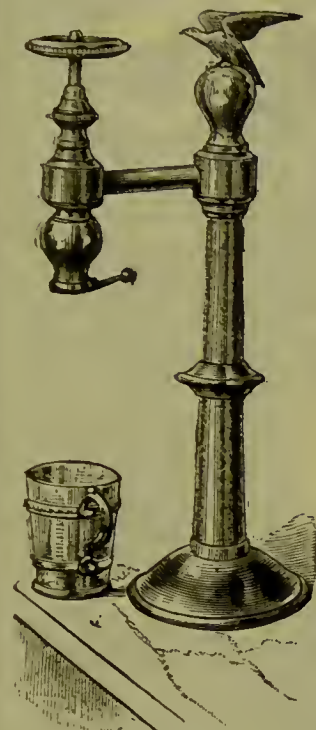
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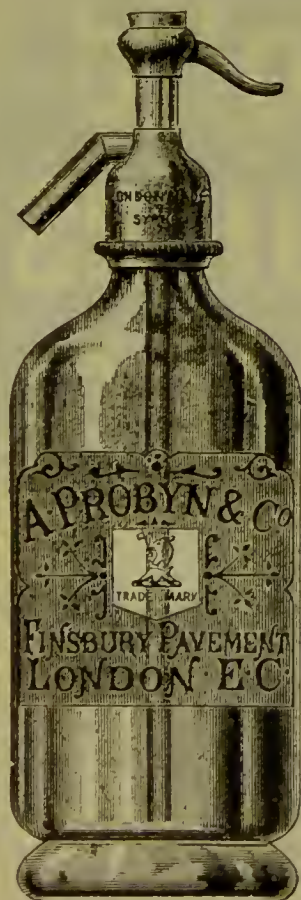
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(The cylinder containing water, and the vessel containing the gas, are placed under the counter, and connected by piping to the Fountain on the Counter.)



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Or, FLUID EXTRACT OF SENNA PODS (RANKIN & BORLAND'S).

A pleasant, mild, and efficacious Aperient, superior in many respects to Cascara Sagrada. Dose—From $\frac{1}{2}$ to 1 Fluid Drachm.
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Contains 25% of Allen & Hanburys' Extract of Malt.

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Delicious Flavour. Brilliant & Attractive Appearance.

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ENLARGEMENT OF SIZE.

A Sixpenny Bottle makes EIGHT GALLONS of
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Full of Body and Flavour, with a Creamy Head like Bottled Ale, the most perfect substitute for Alcoholic Drinks ever discovered, for either Summer or Winter.

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Make Temperance Wines in a few minutes.

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LIQUID STERILISED PEPTONE OF MEAT.

Highly sterilised and concentrated, the only rational one, free from microbes, acknowledged the most efficacious means of restoring STRENGTH, DIGESTION, and APPETITE.

It suits the most fastidious stomach, and is pleasant to the taste.

LIQUID STERILISED PEPTONATE OF IRON.

The most active and assimilable of all ferruginous preparations. Specially recommended in all cases where the stomach cannot bear iron in the ordinary forms.

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MEAT JUICE OBTAINED



BY A COLD PROCESS.

“Unrivalled as a Food and Tonic for Infants and Invalids on account of its Life-sustaining and Flesh-forming properties.”

Is Manufactured at our Works in Kent from some of the finest Cattle England produces.

Every Bullock we kill is first carefully examined, and the animal found to be free from tuberculosis and all other diseases.

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St. George's, Middle St.

NORWICH,

December, 1887.

The Excise Authorities having created a difficulty as to the sale of Medicated Wine containing a certain percentage of alcohol, we obtained in January last, from the Inland Revenue Authorities, permission to sell our Liebig's Extract of Meat and Malt Wine, **WITH QUININE**, without a Wine Licence, and many Chemists not holding a Wine Licence have sold considerable quantities. In order further to meet the requirements of the trade, we have introduced a Liebig's Extract of Meat and Malt Wine, **NON-Alcoholic**, made from the juice of the Grape, Liebig's Extract of Meat, and Extract of Malt. This also can be **SOLD WITHOUT A WINE LICENCE**. Your orders will oblige either direct or through the Wholesale Houses.

Yours obediently,

COLEMAN & CO., LIMITED.

*N.B.—The Wine is sold in Bottles, 2/9 and 4/6 each.
Trade prices on application.*

P.S.—Where the Magistrate's Certificate is not held we are willing to pay the entire cost of a Retail Certificate (the holder of which can sell any kind of Wines) if an assorted order of 6 dozen is sent us of any of our preparations. List on application. Our Liebig's Extract of Meat and Malt Wine **WITHOUT QUININE** commands a very large sale, and is recommended by over one thousand medical men who have sent us testimonials in its favour.

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Composed of Liebig's Extract of Beef, Extract of Malt, and sound Port Wine.

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From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. Robinson, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).

December 15, 1888.

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$\frac{1}{4}$ -lb. Jars..... "	7/3 "	21/0	$\frac{1}{2}$ -oz. Jars..... "	8/8 "	3/3

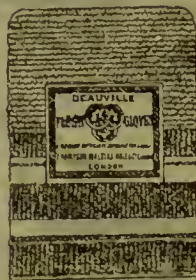
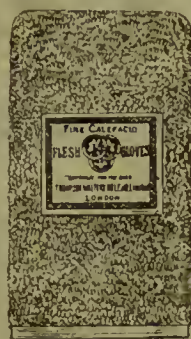
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714	" " " thin	4/6
715	" brown "	5/6
715A	" " " thin	1/6
716	CALEFACIO, coarse or fine	5/6
716A	" fancy stripe border... ..	2/3
717	DEAUVILLE, brown and white, striped	4/3
718	" brown striped	4/3
719	DIEPPE, granite colour	5/6
720	LOOFAHS AND TURKISH GLOVE ^s , single gloves	3/3
721	SCARBOROUGH, dice pattern, brown and white	5/6
721A	" " fancy colours	2/9
722	SULTAN, white with red stripes	1/-
723	TURKISH, thin white, No. 1	3/4
723A	" " No. 2	2/-
724	" thick	4/9
725	" striped	3/8
726	UNION, one side hard brown, the other soft white	6/3
727	VICTORIA, brown, with red and white stripes	6/3
727A	FELL'S Hygienic	7/6

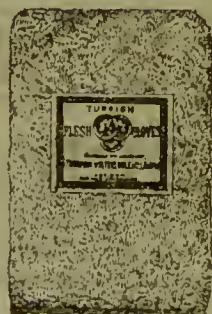
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CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear above are published in one of the other issues of this month.

AERID & MINERLS

Apollinaris Co.
Barnett & Foster
Chemists' Aterated Waters Association.
Ellis & Son (Enthlin)
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Hassell and Co. (Oitris Acid Phospho)
Hay, W.
Idris and Co.
Jewsbury and Brown
Mills and Co. (Bourne)
Schacht, W., and Co.
Taylor, T. and F. J.
(See GINGER ALE.)

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(See SYPHONS and ESEKONS.)
Barnett and Foster
Bratby and Hinchliffe (Ld.)
Egrot
Favarger and Co.
Ferre, T.
Gneret Frères
Lozè, A., & Co.
Tyler, Hayward, and Co.

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Woolley, Sons and Co.

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(Melbourne)
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Peake, Allen and Co.
Prosser, Taylor and Co.
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Roekc, Tompsitt and Co. (Melbourne)
Sharland and Co.
Soul, W. H., and Co.

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French Nickel Manufacturing Co.
Orme, J., & Co. (Solentifio)
Perken, Son and Rayment
Sinclair, Tweedle and Co. (Gas Jet)
Tebbutt, F.
Thompson, C. (Gas-Jet)
Wedgwood & Sons (Mortars)

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Robinson and Sons
Seabury and Johnson

BATH GLOVES

Solport Bros.

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BEEWAX
Bowdlear, W. H., and Co.
Luneberger Wax Bleaching Works

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Brunner, Mond and Co., Lim.
Howards and Sons
May and Baker

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Hewlett and Sons
Howards and Sons
May and Baker
Symes and Co.
White, Alfred, and Sons

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Lincoln and Midland Counties Drug Co.

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Hargreaves, Dr.
Lewie, H. K.
Muter, Dr.
Squire and Sons

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Moseley, David and Sons

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Beach, J., and Sons

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Ayrton & Saunders
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Owen, J., Jr.
Parmenter, I. W., & Co. Lim.
Robinson and Sons

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Bratby and Hinchliffe (Ld.)
Brem's (Lim.)
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Kilner Bros.
Mark, J., and Co.
Pothe, H., and Co.
Sanders, H. G., and Son
Shirley, A. W.
Thompson, Walters, Hole and Co. (Lim.)
Toogood, W.
Youldon, E.

BUTTER COLR. &c.

Clements, S. G. and Co.
Johnson, C. J. and Co.
Oldfield, Pattison and Co.
Hearon, Squire, and Francis
Tomlinson & Hayward

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Evans, Sons and Co.
Fournier, Bon and Co.
Hooper, B., and Co.

CSCRA SAGRADA

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Evans, Sons and Co.
Ferris and Co.
Moss, J., and Co.
Squire and Sons

CATALOGUE

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Sanger and Son

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Dunn and Co.
Levermore, Ang., and Co.
White, A., and Sons

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Thompson, Walters, Hole and Co. (Limited)
Wood, Vincent

CHLORIDE OF GOLD

Rowland, L.

CHLORIDE OF LIME

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National Chemical Co.

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Boehringer, C. F., and Sohne
Brunner, Mond and Co., Lim.
Bush, W., Son and Co.
Dunn and Co.
Fletcher Fletcher and Stevenson
Fuerst Brothers
Goodall, Backhouse and Co.
Greiff, E. W., and Co.
Hill, A. S., and Son
Hodgkinson, Treacher and Clarke
Howards and Son (Pharm.)
Kuhn, B.
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Lorenz, H.
May and Baker
Morris and Gallard
Moss and Co.
Pronk, Davis and Co.
Poulenc, Freres
Stern, G. and G. (Fumiline)
Smith, T. and H., and Co.
Tytkie and King
White, A., and Sons
Zimmermann, A. and M.

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Macfarlan, J. F., and Son
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Wright, Layman and Umney
Zimmermann, A., and Son

CITRIC ACID

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Lofthouse and Saltmer
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Southall Bros. and Barclay
Woolley, Sons and Co.

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Fuerst Bros.
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Leo and Co.
Wyleys and Co.

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CURED LINSEED

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Hoekin, Wilson and Co
Idris and Co.
Kay Bros., Lim.
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Rai kin, W., and Sons
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Wood, Vincent

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Martin, Maria (Nun)

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Wood, V.

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Orme and Co.

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ENEMAS

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Burgoyne, Burdidge and Co.
Bush, W. J., and Co.
Cummock, J.
De Carle and Son (Fruit)
Fitzsimmons and Fearnley
Goodall, Backhouse and Co.
Hay, W.
Idris and Co.
May and Baker
Oldfield, Pattinson and Co.
Stevenson and Howell
Tyrer, P. (Anchovies)
Woolley, Sons and Co.

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Evans, Sons and Co.
Fitzsimmons and Fearnley
Hodgkinson, Treacher and Clarke
May and Baker
Stevenson and Howell
Symes and Co.
Tombarel Freres
Treath, R. O.
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Wright, Layman and Umney
Vogt, G., and Co.

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Howards and Son
May and Baker
Robbins, J., and Co.
White, A., and Sons
Woolley, Sons and Co.
Wright, Layman and Umney

EUCALYPTUS

Downie B. I. P. Co.
Knight and Co. (Tablets)

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Kerfoot, T.
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Tyrer, P.

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Fitch and Nottingham

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Newsome, O.
Robinson and Sons
Seabury and Johnson

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Idris and Co.
Rice

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Raines and Co.
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Melin, O. (Capsuling)
Palau and Co.
Werner and Pfleiderer

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Henry, T. and W. (Calcined)
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Hekisson, J.

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Chiris, Antoine

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"Optieura"

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Coward and Co.
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Durrant, Geo.
Ewen (Soaps)
Farina, J. M.
Giraud Filis
Greenall, T. S., and Son
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Mouilla Liquid Soap Co. (Lim.)
Newbery and Sons (Herdoes)
Osborne, Bauer & Cheeseman
Pears' Soap
Price's Patent Candle Co.
Rosemarine Manufg. Co.
Rouse & Co.
Sainsbury, S. (Lav. Water)
Shirley, A. W.
Taylor, J. N.
Thompson, Walters, Hole and Co. (Lim.)
Treath, R. O.
Truefitt, H. P. (Limited)
Vogt, G., and Co.
Warwick Brothers
West, T. (Ocell's Mona)
Woolley, Sons & Co. (Powder)

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Darton, F., and Co.
Howards and Son (Chemicals)
Marion and Co.
Orme, J., and Co.
Perken, Son and Rayment
White, Alfred, and Sons

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Stern, G. and G.

PILL MACHINES

Niblett, G. W.
Palau, N., and Co.
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Toogood, (E. E. Pots, regist.)

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Billault
Brady and Martin
Burgoyne, Burdidge & Co.
Burroughs, Welleome & Co.
Chanteaud, G.
Chesbrough and Co.
Claudon, G.
Dee Oil Co. (Limited)
Deutschmann & Woroneicki
Duncan, Flockhart and Co.
Fellows
Ferreis and Co.
Fletcher and Co.
Fournier, Bon and Cie
Franeau, E.
Giles Schacht & Co.
Greiff, E. W., and Co.
Hearon, Squire and Francis
Hewlett and Son
Hill, A. S., and Son
Hooper, B., and Co.
Howards and Sons
Jeyes Sanitary Compounds Co.
Keith & Co. (Cone. Tinctures)
Lorenz, H.
Lorimer and Co.
Marindale, W.
May and Baker
Morton, T., and Son
Rankin and Borland
Riccles and Co.
Roberts and Co.
Southall Bros. and Barclay
Sutton, W., and Co.
Symes and Co.
Trommsdorff, H.
Tucker, J., and Co.
White, Alfred, and Sons
Willows, Francis and Butler
Woolley, Son & Co.
Wyleys and Co.

PHOSPHORUS

Colignet and Co.

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Beecham, Thomas
Eade's Gout Pills
Evans, Sons and Co.
Frere, L.
Holloway's
Hooper's
Hearon, Squire, and Francis
McKesson and Boucma
Newbery and Sons
Richards, J. M.
Warner, W. K. & Co. (Coated)
Wyleys and Co.

PODOPHYLLIN, &c.

Keith, B., and Co
Smith, T. and H., and Co.

PLASTERS

Evans, Sons and Co.
Johnson and Johnson
Mather, W.
Quilliam, J., and Co.
St. Dalmas, A. De
Seabury and Johnson
Thompson, M. F.
Young, H.

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Fordham, W. B., and Sons
(Limited)

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Cyclostyle Co.
Ford, Shapland and Co.
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Townsend, J.
Zuccato and Woolf

PUMILIN

Stern, G. and G.

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Andreas, Oscar, and Co.
Boehringer, O. F., and Sohne
Howards and Sons
Kuhn, B.
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Zimmermann and Co.

RENNET

Clements, S. G., and Co.
Duncan, Flockhart and Co
Johnsen and Jørgensen
Oldfield, Pattinson and Co.

SACCHARIN

Allen and Hanburys
Burroughs, Wellcome and Co.

SALICYLIC ACID

Fuerst Bros. (Kolbe's)
Morsen, T., and Son
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" "	" 2	—	8/	" "	—	2/
" "	" 3	—	9/	" "	—	3/
Tin Pannikins, No. 1, 8/	—	—	—	No. 2, 10/	—	No. 3, 12/

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N.B.—Ask for CLARKE'S PANNIKIN, and see that his name and the registered number (Registered 91,241) is on the Pannikin, and trade mark "PYRAMID."

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For use with CLARKE'S "PYRAMID" NURSERY LAMP FOOD WARMER,
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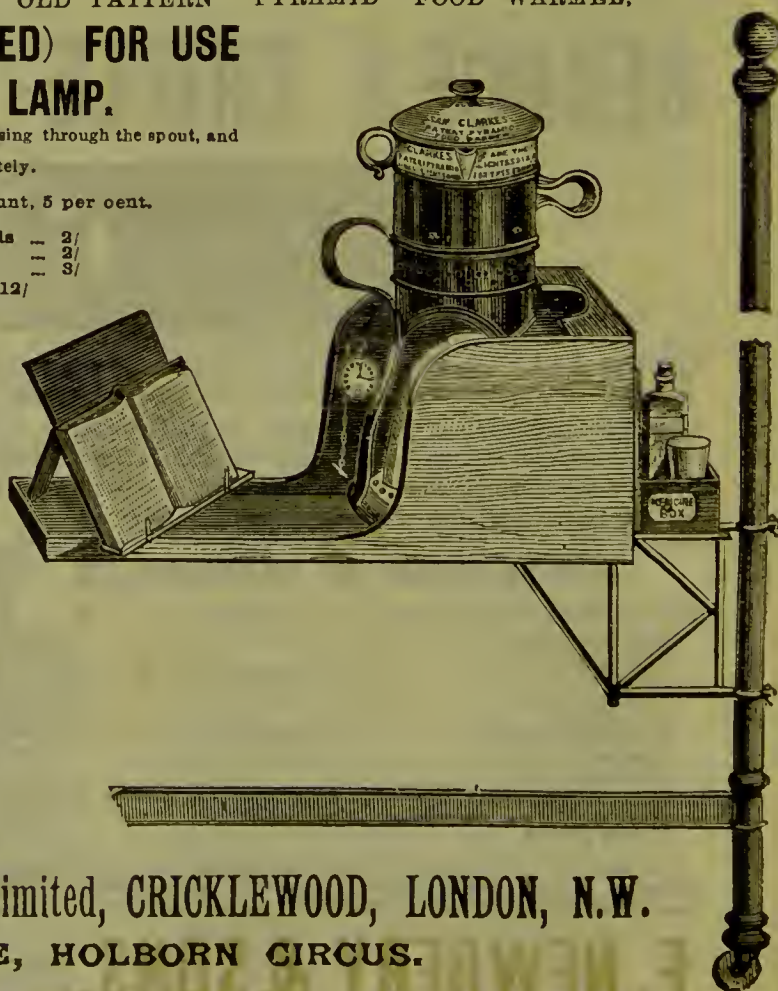
This is an invaluable Invention, and useful appliance at the bedside, suitable for Invalids, and particularly for Parents whose Infants require Feeding during the night. It obviates the necessity of getting out of bed, as everything required for use can be put on the TRAY. The Tray is adapted for use in connection with Clarke's "Pyramid" Food Warmer, and when not required can be turned to the wall in such a manner as to Shade the Person in bed from the Rays of the Light.

Invalids will find it a Great Comfort, for any book, plate, basin, &c., can be placed thereon ready for use, and obtained without altering the position in bed. By means of a Slide, the Tray can be pulled forward to the position or length required. It is Highly Recommended by the Medical Profession, and can be obtained from most dealers in Clarke's "Pyramid" and "Fairy" Lamps.

Tray, 15/, with Book Rest & Medicine Box, 21/, less 33½ per cent.
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If with Brass Bracket, 4s. extra. Adjustable Brass Support for book rest, 5s. extra.

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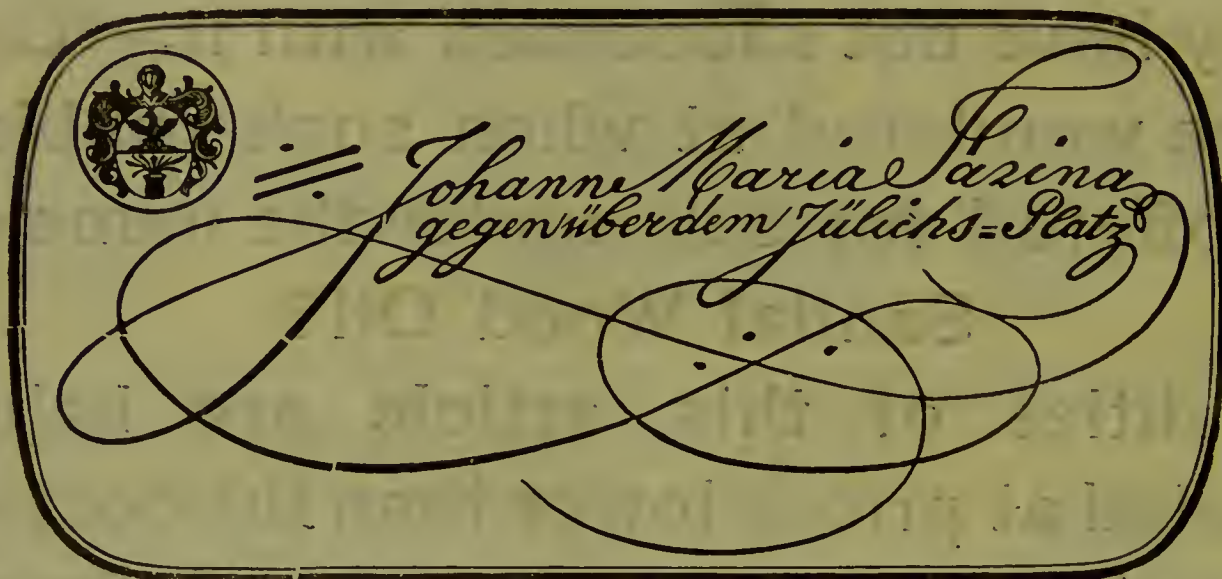
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; Albert II., King of Saxony;



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At the same time I beg to call special attention to the following facsimile of my Trade Mark for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



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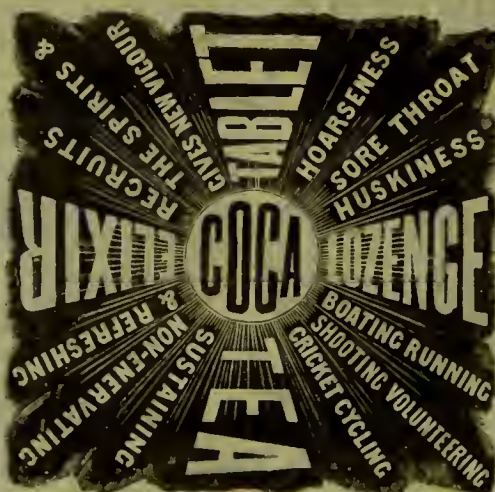
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"	11/	40/	"	7/8	28/
" Compound	7/	24/	"	9/8	34/
" and Strychnine.....	7/	24/	"	11/8	42/
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" or Aperient, No. 1 (Clark).....	9/	32/	"	5/	18/
" " No. 2, No. 3, No. 4	7/	24/	"	6/	20/
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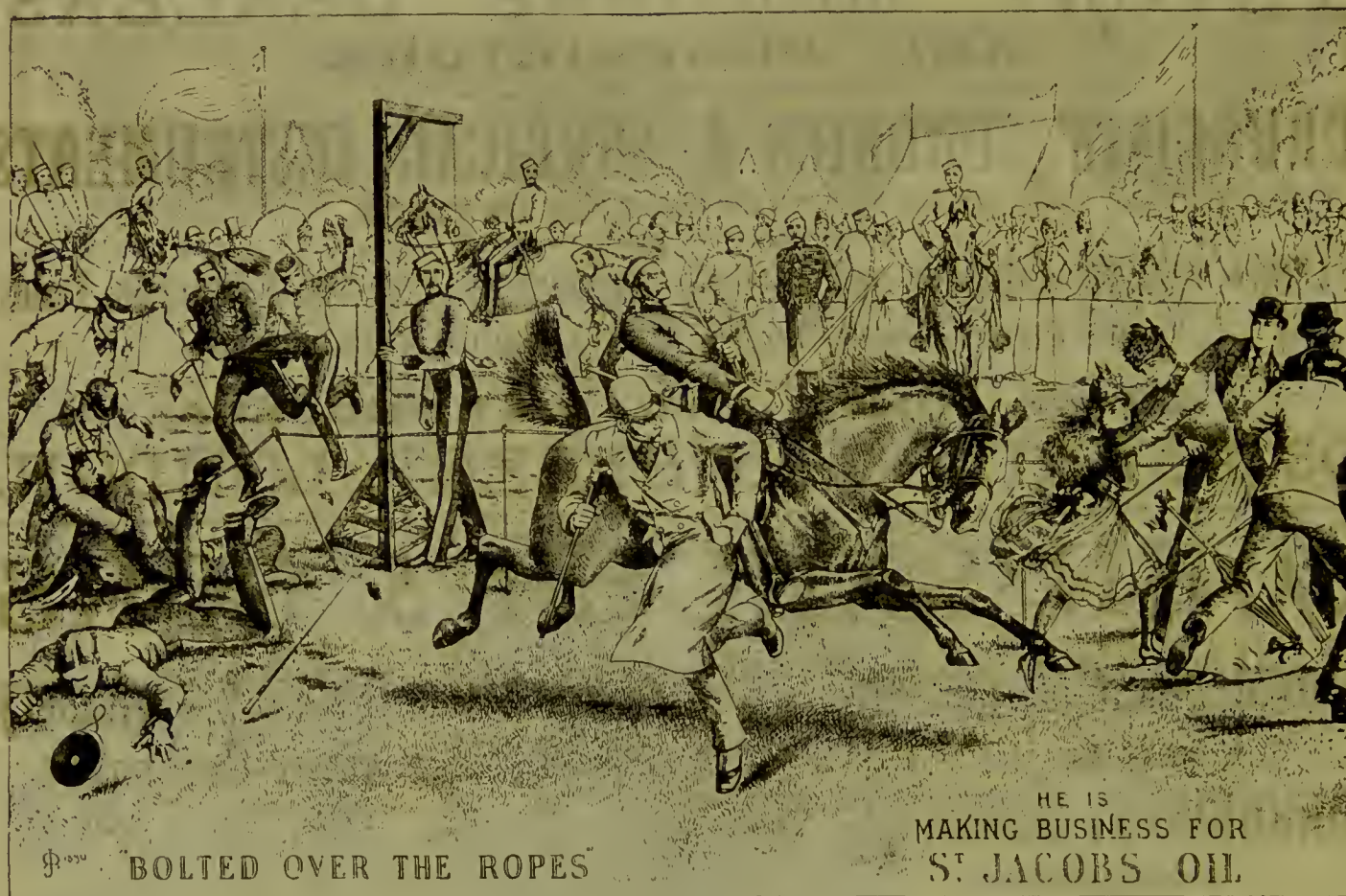
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A READY TEST.

LONDON.]

JUNE 21st.

[1890.

Extractum Malti "Kepler."

When we consider the spirit of imitation seriously, it is a good plan to collect the fullest amount of information relating to the substance in question and compare facts.

The Kepler Malt Extract has acquired an unparalleled notoriety as a perfect preparation of its kind, chiefly on account of its richness in diastase (the vegetable ptyalin), this ferment being the resulting product by decomposition of the gluten which exists in the barley. The dextrin in the Kepler Malt Extract is also an important factor in assisting gastric secretion. If, as should be the case, our specimen of Malt Extract has undergone no alcoholic fermentation, dextrin will be present in large quantities. This body, which is a poly-saccharate possessing the formula $(C_6H_{10}O_5)_x$, constitutes nearly one-third of the result of the action of diastase upon starch. Probably at least three different dextrins are thus produced, viz., amido-dextrin, erythro-dextrin, and achroo-dextrin. These bodies are incapable of direct fermentation, but in the presence of diastase they undergo alcoholic fermentation with yeast.

Malt Extract which has undergone fermentation leaves little dextrin behind, the whole having been converted first into glucose, and then partly into alcohol.

The physiological action of malt dextrin is to stimulate gastric secretion, and so assist debilitated digestive functions in the performance of their duty.

Proteids exist in malt chiefly as albumen, vegetable casein, &c., and are considered to be an important factor in repairing defective nutrition. The Kepler Malt Extract contains one-eighth part of such substances, either unchanged or as peptones.

MINERAL MATTERS.—These are in the form of phosphates derived from the grain; the Kepler Malt Extract contains 3 per cent. of these matters. We have, therefore, in the Kepler Extract of Malt a perfect concentrated tonic food, suitable for use in all cases of mal-assimilation and mal-nutrition.

TEST.

When a teaspoonful of the Kepler Malt Extract is mixed with a dish of warm thick oatmeal porridge or arrowroot, its digestive activity is immediately

apparent by the food liquefying and the starch being transformed into assimilable sugar. If such digested food be then tested for sugar by Fehling's test, the sugar reaction will appear markedly manifest. The best "appearance" test for a good Malt Extract is its adhesiveness.

If alcoholic fermentation be carried on, this adhesive principle (dextrin) will be converted into grape sugar at the expense of the diastase.

It is well, therefore, to avoid *cheap and common malt extracts*, for in these the bulk of extract has generally been the first consideration, and digestion has been carried on in the wort until the whole of the starch, dextrin, and proteids are converted into soluble saccharine products. This, then, is the reason why cheap malt extracts can be made. They are generally found of no more benefit as a food or digestive agent than treacle.

A fact worthy of note is that chronic constipation can be entirely obviated by a course of Kepler Extract of Malt. The Extract goes to the seat of the disorder and acts upon the food itself as a lubricant and emollient.

We venture here to report a few of the Verdicts for the Kepler Extract of Malt:—

"It is by far the best" (*Med. Times and Gazette.*)

"It is undoubtedly the best" (*Med. Record.*)

"It is delicious to the taste" (*Med. Press.*)

"It has the finest flavour of any, and possesses superior diastatic activity" (*M.D.*)

The *Lancet* says:—"It is the best known and in this country the largest used Extract of Malt. It is as distinct an advance in therapeutics as was the introduction of cod-liver oil. It is one of the best remedies for atonic dyspepsia, and is undoubtedly useful in consumption and other wasting diseases," and further adds, "It is very good, and may be used with confidence."

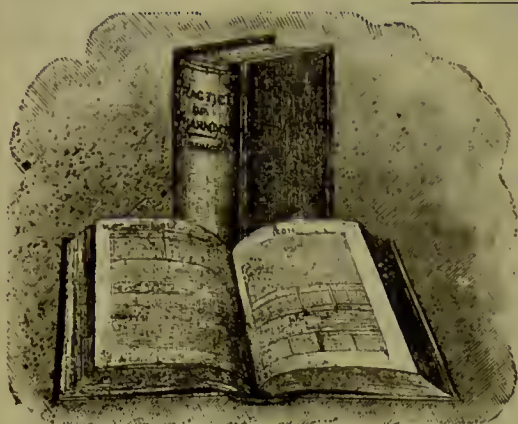
No better means than this Extract in combination with cod-liver oil (Kepler Solution of Cod-liver Oil in Extract of Malt) can be taken to combat disease in phthisical and scrofulous subjects, and to build up a sound body.

The Kepler Extract of Malt and the Kepler Extract of Malt with Cod-liver Oil (Kepler Solution) supplied to the trade in bottles containing $\frac{1}{4}$ -lb. and $1\frac{1}{4}$ -lb., at 22s. and 38s. per dozen; Retail, 2s. 6d. and 4s.



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Detergens, acting for four hours, arrested future growth."

Of all Druggists, Wholesale and Retail, throughout Great Britain, Ireland, and Colonies.

LIQUOR

From the *Lancet*, Dec. 22, 1886:—"In our hands it has been a most effective agent in skin diseases, especially of the chronic eczematous class, and one class of psoriasis which had resisted all other kinds of treatment speedily got well under the application of the *Liquor Carbonis Detergens*. We esteem it a very valuable addition to our list of skin remedies."

1871:—"We have tested it, and can affirm its value as a detergent agent. We consider the Liquor is an article of great utility."

Kept in stock and sold by all Druggists (Wholesale and Retail) throughout the United Kingdom and Colonies. PROPRIETORS—

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CARBONIS

From the *Medical Times and Gazette* Jan. 19, 1867:—"We have more than once called attention to the value of this remedy in chronic eczema."

From the *British Medical Journal*, Sept. 22

DETERGENS.

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Supplied regularly to every member of the following Societies, who have adopted THE CHEMIST AND DRUGGIST as their official organ:—

The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

The Launceston Pharmaceutical Association.

South African Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

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THE IRISH PHARMACY BILL.—In the House of Commons on Thursday night the motion for going into committee on the Pharmacy Act (Ireland) 1875 Amendment Bill was opposed by Dr. Tanner, notwithstanding the appeals of Mr. Johnston (Belfast), Mr. Sexton, and Mr. Healy to allow the Bill to proceed. It consequently stood over.

THE CHEMIST AND DRUGGIST OF AUSTRALASIA, published monthly at our Melbourne office, can be supplied to subscribers outside Australasia at 5s. per annum, payable in advance, and commencing at any date. Chemists interested in the drug trade and the pharmaceutical affairs of the Australasian Colonies will find a full record of all events affecting their occupation in *The Chemist and Druggist of Australasia*. Single copies can be supplied at 6d. each. Application should be made by English or American subscribers to the office at 42 Cannon Street, London.

ADVERTISEMENTS of situations vacant and wanted, businesses for disposal, &c., will be received by us up till the first post on Friday morning

POSTCARD COMPETITION.—JUNE.

THE PHARMACEUTICAL SOCIETY'S JUBILEE.

In concluding their forty-ninth annual report, published in THE CHEMIST AND DRUGGIST, May 10, 1890, the Pharmaceutical Council remarked: "It is interesting to note that the Society has entered its fiftieth year, having been founded in March, 1841, and next year it will be a question as to the most fitting way for the Society to celebrate its jubilee." We shall be glad to see what suggestions for the celebration of this jubilee can be offered by our correspondents, and we therefore invite ideas to be sent to us on postcards during the month of June. We shall pay the usual guinea for the information which seems to us to be the brightest and best. Subscribers, their families, and employes are all eligible to enter this competition. Postcards only can be received, and on June 30 the competition will be closed.

CHEMIST AND DRUGGIST SERIES.

NEW AND IMPORTANT WORK FOR CHEMISTS.

"A MANUAL of Pharmaceutical Testing for the Man of Business and his Assistants; comprising simple instructions for the testing of the chemicals of the British Pharmacopœia, &c.; with such materials and appliances as are in common use at the dispensing-counter. By Barnard S. Proctor, F.I.C. Published at the Offices of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C., and at Melbourne and Sydney. 1890."

We quote above the title-page of Mr. Proctor's new manual, which we have published at 2s. 6d., or 2s. 9d. post free. This description of the work concisely explains its objects and scope. It will be found of great and frequent use in all pharmacies, both for practical and for educational purposes. It will be sold through wholesale houses, and we shall be glad to receive orders for it direct. It is uniform in binding and style with our other "Manuals," the "Art of Dispensing" and Alpe's "Handy Book of Medicine Stamp Duty."

"THE ART OF DISPENSING."

THIS popular work treats of all the manipulative details involved in compounding medical prescriptions, special attention being given to dispensing difficulties. It includes particulars regarding pill excipients and pill coating, the suppositories, emulsions of all kinds, mixtures, &c. There are distinct chapters on the dispensing of French, German, and homœopathic prescriptions, and select new remedies. The appendix comprises French, German, and Latin vocabularies and a concise table of doses of potent medicines. The book is got up in good style and is published at 3s. 6d.

"THE HANDY BOOK OF MEDICINE-STAMP DUTY."

THIS work has been written for us by Mr. E. N. Alpe, of the Solicitors' Department, Inland Revenue Office, Somerset House, who has had a wide experience in and intimate knowledge of the administration of the Acts which regulate the sale of proprietary medicines. The Handy Book is, consequently, of exceptional value to chemists and druggists, more especially in showing how medicines are made liable to stamp-duty by labelling, circulars, and the like. Reviewers have been unanimous in stating that the work is not only complete, but interesting and invaluable. It is as free as possible from legal phraseology, is readable, and is nicely got up. Price 2s. 6d., or by post 2s. 9d. May be obtained through the wholesale houses in the same way as "The Art of Dispensing."

Metropolitan Reports.

THE BALACLAVA SURVIVORS' FUND.—We remind chemists of the *fête* to come off on Wednesday next at the Phoenix Mills, Dartford (Messrs. Burroughs, Wellcome & Co.'s), in aid of this fund. Tickets of admission, 1s. each, or for the whole round of gaieties, 2s. 6d., and half-price railway tickets, may be got from Messrs. Burroughs, Wellcome & Co., Snow Hill Buildings, London.

MR. CARTEIGHE'S MISSION.—A conference of the chemists and druggists of Islington, St. Pancras, Marylebone, and Hampstead, will be held in the music-room of the St. Pancras Hotel, Euston Road, on Thursday, June 26, at 3 P.M., when Mr. Carteighe will make some observations on matters of trade interest, and a discussion will follow. The meeting is called by the divisional secretaries of the districts.

ELECTRIC-LIGHTED PHARMACY.—Only one or two pharmacies in the metropolis are lighted with electricity—one in Brompton Road and another in Praed Street (we think): these, we believe, get their supply from companies. Passing along New Oxford Street a few evenings since, one of our staff noticed that Mr. Matterson's "Day and Night Pharmacy" was as bright as the day above, and he thought it would be worth while to see how the thing is done. Mr. Matterson readily agreed to unfathom the mystery. It is situated in the basement, and takes the form of a 4-horse power gas-engine and a powerful dynamo. The current is sent straight from the dynamo to the 40 odd glow-lamps which are in the shop above, and half-a-score which are outside; but about ten o'clock, when the night-service begins, the dynamo stops, and the supply is got from part or the whole of a battery of 33 large Faure's cells. These are charged in the course of the evening simultaneously with the direct supply from the dynamo to the lamps. The installation is an excellent one, perfect in every detail, and apparently laid down with great forethought. The effect which the brilliant illumination has on the pharmacy has to be seen to be properly appreciated, and, so far, the effect on the business is encouraging. Whether it will pay itself or not Mr. Matterson is not yet in a position to say, but he is to give it a year's trial at least.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.

BRIGHTON.

EARLY CLOSING.—In view of the movement in favour of early closing, and of a general shop half-holiday, Mr. W. D. Savage and Mr. Marshall Leigh (the president and hon. sec. respectively of the Brighton Association of Pharmacy) have addressed a circular letter to the trade in Brighton saying that it had been suggested that chemists might, in common with other trades in the town, close their shops early on one evening in the week, or otherwise curtail the present long hours. In the event of a general feeling of the trade, they ask each chemist if he would be disposed to comply with such an arrangement, and what time would he suggest as the most convenient.

HORNCASTLE.

AT HOME NOW.—The funeral of Mr. Timothy Fowler Overton, chemist, of New York, U.S.A., took place at Horncastle cemetery last week. Deceased, a member of an old Horncastle family, went out to the States many years ago, and became very successful in business. He died on May 12 at New York, and, in accordance with the directions in his will, his remains were brought over the Atlantic for interment. The lid of the coffin was chiefly of glass, and the body, which was embalmed, presented a natural appearance. The coffin was of a peculiar pattern. The body was attired in ordinary apparel, and there was no shroud.

LIVERPOOL.

SETTLEMENT OF THE WIDNES ALKALI STRIKE.—The dispute at the Widnes Alkali Works has been settled by the masters conceding the terms of the men. The dispute has lasted about six weeks. The masters concede the 2d. per ton asked for, 6d. extra for Sunday, and plus work to be paid for. The men agree to the taking away of pot-money.

FIRE.—A DRUG-WAREHOUSE DESTROYED.—On June 15 a fire broke out at the premises of Messrs. Clay, Dod & Co., wholesale druggists, St. Anne Street. The premises destroyed were very large and extensively stored with drugs and chemicals, many of them being of a combustible character. The fire on reaching these flamed to a tremendous height, and fears were entertained for the neighbouring houses. A large stock of ether, chloroform, and methylated spirit was totally destroyed, being stored in the back part of the warehouse, which was completely gutted. The damage done is estimated at a considerable amount. The firm announce that they have taken temporary premises at 13 Bear Street.

NOTTINGHAM.

THE WEEKLY HALF-HOLIDAY.—A vote taken of chemists' opinion in regard to the weekly half-holiday has yielded the following result:—There were 78 papers issued, and 65 replies were received, 32 being in favour of closing from 1 to 6 P.M., 16 in favour of closing at 1 for remainder of day, 4 for closing at 5 P.M. Seven were unable to close, being postmasters, 4 unwilling, and 2 would do as the majority did. A meeting of the trade was held on June 11, Mr. Councillor Fitzhugh, J.P., in the chair, when, after discussion, the following resolution, proposed by Mr. Bolton, seconded by Mr. W. H. Parker, and supported by Mr. Middleton, was unanimously carried:—

That this meeting of chemists having received a good return from men in business willing to close their establishments for a portion of Thursday, and as the requirements of the public are different in the suburbs to those in the centre of the town, it is decided to ask the chemists to close in the outlying districts from 1 to 6 P.M., and in the centre of the town from 5 P.M. for the rest of the day, and that this should commence on July 1.

It was remarked that this course would not prevent those who wished to close at one for the remainder of the day from doing so, and it was hoped that, as the public became accustomed to the scheme, it would be possible for all chemists to close at 1 o'clock. Some other subjects, such as the extra 6d. duty on spirits and the new Pharmacy Act, were also discussed.

IRELAND.

SUGAR FROM BEETROOT.—Dr. Shack-Sommers is about to erect suitable mills in Ireland for the manufacture of sugar from beet.

FIRE AT A DRUG-STORE.—At Belfast, last week, the drug, oil, and colour establishment of Mr. W. Greer, Falls Road, was destroyed by a fire.

HOSPITAL SATURDAY.—The result of this year's collection at Belfast shows that 324% have been collected, being an increase of 60% on the 1889 contributions.

DRUG CONTRACT.—The governors of Mercers' Hospital, Duhlin, invite tenders for the supply of drugs and surgical appliances. The appointment, subject to the usual contract stipulations, will be made on June 24.

AMONG the most recent curiosities in Dublin is an undersized Chinaman, who is doing a roaring trade in penny tablets of a compound known by the high-sounding title of "Daughter-of-the-sun" tooth-paste. The Celestial, whose English savours more of Cockney than of China, finds a ready sale among the suburban feminines.

MR. GEORGE MOORHEAD, of Bloomfield Lodge, Belfast, writes to us to say that he is a commercial traveller, and asks us to make it clear that he is not the person of the same name and also described as a commercial traveller who, as stated last week, was charged at a Duhlin police-court with having personated an inspector under the Sale of Food and Drugs Act.

ACTION AGAINST A VETERINARY SURGEON.—Last week, at the Ballymena Petty Sessions, an important case was heard, having reference to the liability of veterinary surgeons and chemists. The plaintiff, Mr. Hugh Rainey, a local merchant, sought to recover 27*l.* damages from Robert Kernohan, a veterinary chemist and surgeon, for alleged negligence in the examination of a horse which was painted to hide certain blemishes, which the defendant, in the hurry of examination, failed to point out. His Honour held that the duty of the defendant was not to discover such tricks of trade, but merely to examine the animal as to soundness, and accordingly dismissed the action on its merits, with costs and witnesses' expenses.

NO STOPPER IN THE VITRIOL.—At the Dublin Police Court recently, a druggist's vanman, named Kavanagh, was charged with carelessness while in custody of a horse and float, in consequence of which a child named Nannie Byrne sustained injuries which terminated fatally. From the evidence it appeared that while the prisoner was getting his horse shod, the deceased, with some other children, was playing around the float, which was filled with carboys of vitriol. The vehicle was uptilted by some of the children getting into it, and one of the bottles in which there was no stopper fell, soaking the unfortunate girl with its contents, and burning her so fearfully that death ensued shortly afterwards. The accused was remanded on bail.

PERSONAL.—On the recommendation of a sub-committee Mr. F. W. Moore, curator of the Botanic Gardens, Glasneven, has been appointed consulting botanist to the Royal Dublin Society. Mr. Meyler, L.P.S.I., late secretary to the Irish Pharmaceutical Chemists' Association, has been appointed manager of Stirling's Medical Hall, Kilkenny. Mr. George L. Tuthill, of Dublin, has been elected dispensary officer to the Portlaw district vice Mr. James Martin, deceased. Sir Charles Cameron, chemist and city analyst, Dublin, has been elected for the third time president of the British Public Health Society. Mr. William Moffatt has been appointed provincial representative for the firm of Hugh Moore & Co., wholesale druggists, Linen Hall.

THE CHEMISTS' AND DRUGGISTS' SOCIETY OF IRELAND.—A special committee meeting of the Northern branch was held on Monday evening. Sir James Haslett, president, recounted the work done by the deputation during the previous week in London in connection with the Pharmacy Bill. He gave details of several interviews which had taken place between themselves and the department representing the Pharmaceutical Council in the Lobby of the House of Commons. It appeared that every possible effort had been made to come to terms with the latter body, but they wanted too much surrendered. Their demands included the abandonment of the title chemist and druggist, and the withdrawal of the claim for representation on the Council. These points the chemists' and druggists' representatives declined to yield, and the negotiations failed. The meeting resolved to leave the matter entirely in the hands of the Law Committee, who undertook to use every effort to get the Bill passed.

SCOTLAND.

DUNDEE.

SUMMER CLASSES.—Mr. J. Braik Mason, F.C.S., a chemist and druggist in business in this town, lecturer in the science department of the Young Men's Christian Association, has offered to deliver a series of lectures free to the members of the Assistants' Association during the summer months. Mr. Mason's offer has been unanimously accepted, and the necessary arrangements will be made forthwith.

THE HALF-HOLIDAY.—A meeting of the Assistants' Association was held on Monday, Mr. W. Edwards presiding. The members considered the report of the committee who had been appointed to get the opinion of the employers regarding the half-holiday. The committee had found that with the exception of the three principal pharmacies in the centre of the town the movement was unanimous. It was agreed to defer the matter till Friday, when the matter will be further considered. The Association has been in com-

munication with the trades council regarding this affair, and the council has agreed to help as far as they can to get all the shops shut for three or four hours on Wednesday afternoons.

General News.

THE "CHEMICAL SOCIETY'S JOURNAL" for June is illustrated in the abstracts part. This is the first time this has been done. There are several good illustrations of apparatus, which otherwise would have been passed unnoticed.

TAKING POISON BY MISTAKE.—On Tuesday of last week the wife of Charles Moss, coachman to Lord Rayleigh, of Terling Place, Witham, took what she thought was oatmeal, but which turned out to be a mixture of wheat and arsenic which had been used for poisoning rats. The two articles were kept together in the same cupboard. The unfortunate woman was attended to by Mr. W. D. Gunnson, of Witham, but after lingering until Sunday last, she died from the effects of the poison.

WHAT IS A PERFECT NEGATIVE?—This is a question which Dr. F. Hurter and Mr. V. C. Driffeld answer in the last issue of the "Journal of the Society of Chemical Industry." Their paper is entitled "Photo-chemical Investigations and a New Method of Determination of the Sensitiveness of Photographic Plates," but is too long for reproduction in our columns. It is interesting to photographers who have a fair knowledge of chemistry.

THE BRITISH ASSOCIATION.—As previously announced the first general meeting at Leeds will be held on Wednesday, September 3, at 8 P.M., when Professor W. H. Flower will resign the chair, and Sir Frederick Abel, president-elect, will assume the presidency and deliver an address. On Friday, September 5, at 8.30 P.M., there will be a discourse on "Mimicry," by Mr. E. B. Pulton, F.R.S.; and one on Monday, September 8, at 8.30 P.M., on "Quartz Fibres and their Applications," by Professor C. Vernon Boys. The president of the chemical science section will be Professor T. E. Thorpe, F.R.S.

THE GREEK TARIFF.—The reduction in the duty on currants which has been effected under the recent Budget has been reciprocated by Greece, in the reduction or abolition of her duties on numerous goods of British origin or manufacture. Among these are the duty on indigo, which has been reduced from 3 drachma to 10 lepta (or about 2*s.* 6*d.* to 1*d.*) per oka. Crude acids, such as sulphuric, hydrochloric nitric, carbolic acids, &c., on which the duty hitherto has been 10 lepta, are to be freed altogether, and the duty on the same acids for pharmaceutical purposes, &c., has been reduced from 20 to 10 lepta per oka. The same reduction has been made on "unenumerated chemical products."

CAPE TOWN CHEMISTS' ASSISTANTS.—A meeting of the Cape Town chemists' assistants was held on Wednesday, May 21, for the purpose of considering the best steps to be taken for the purpose of obtaining shorter hours. About fifteen assistants were present, and Mr. W. B. Jeffreys was elected chairman. In the discussion which followed it was stated that many of them worked eighty or ninety hours a week, and it was proposed by Mr. Gaddes, and seconded by Mr. Smith, that a deputation be sent to the chemists of the town, to ask them if eight o'clock would be a suitable hour for closing. This proposal was carried unanimously. It was also proposed, by Mr. Wilkinson, that a circular be sent to all the doctors, asking them if certain hours for Sunday dispensing would meet with their approval; but it was finally decided that they should leave this matter over until they had ascertained the views of the masters.

CHEMICAL MANUFACTURERS AND THE GERMAN LABOUR LAWS.—The chemical industries of the provinces of Rhenish-Prussia and Westphalia have decided to petition the German Reichstag, through their organisations, against the proposed law on Sunday rest and the liability of employers for accidents to their hands and the sanitary condition of the works. The petition points out that the Bill particularises over 280 different branches of chemical industry as coming under its provisions. Among these are a large number of processes in

which it is absolutely necessary to continue working on Sundays and holidays. In some instances uninterrupted labour is required to produce the object of the manufacture, in others the machinery cannot be stopped without serious loss, especially in processes where a high or equal temperature is a necessity. With regard to the length of working hours, it is also pointed out that the course and duration of many chemical processes which require constant supervision cannot be estimated beforehand.

SOCIETY OF CHEMICAL INDUSTRY.—The programme has been issued of the annual meeting to be held at Nottingham on Wednesday, July 9, and two succeeding days. The meeting will be held in the chemical lecture theatre of the University College at 11 A.M. Sir I. Lowthian Bell, Bart., will preside, and will deliver an address. The reports of the council and treasurer will be received. Thereafter the Midland Railway works at Derby will be visited, and for the evening the Mayor of Nottingham (Alderman E. Goldschmidt, J.P.) has invited the society to a reception and conversation at Nottingham Castle at 8 P.M. On Thursday there will be a visit to the Burton breweries and alternative local visits, the day winding up with the annual dinner, to be held in the Exchange Hall at 7.30 P.M. On Friday the Nottingham section invite a party of members to an excursion to the "Dukeries" and Sherwood Forest, visiting Welbeck Abbey and Clumber House. Those who wish to attend the meeting and take advantage of all that is to be seen and done should address the hon. local secretary, at University College, Nottingham, as soon as possible.

THE NEW YORK WHOLESALE TRADE ORGANISES.—"Senate Bill 271"—in other words, the Bill to provide against the adulteration of food and drugs—recently discussed in the United States Senate, and of the draconian provisions of which we published an account recently, has been shelved, the *Oil, Paint, and Drug Reporter* says, never to be resurrected. According to our contemporary the failure of the Bill is due to the successful agitation initiated by the drug trade, who formed a strong committee, presided over by Mr. T. F. Main, and numbering among its members Messrs. John McKesson, jun., Henry Dalley, jun., A. Plant, F. C. Geiger, and F. G. Meyer. The Wholesale Druggists' Association also took part in the fight, and issued a lengthy manifesto exposing the unfairness of the measure in the interrogative form, garnished with quotations from Shakespeare and the Prophet Jeremiah, with casual references to Nero and St. Paul thrown in. Still the result of all the hubbub has been that the Senate Committee on Agriculture "had to acknowledge the unfairness of the proposed measure by accepting a substitute which has no allusion to licence, special branding, labelling, tagging, or proprietary goods." The new Bill is satisfactory to the trade, provided it be carried without any hostile amendments. The threatened danger to the trade has had the satisfactory effect of rousing the New York druggists to a better appreciation of the power of combination. Hitherto they have been practically without any trade organisation, but steps have now been initiated to form one strong association for the defence of trade interests, which shall include the wholesale druggists as well as the manufacturing pharmacists and chemists of New York city.

NEW PORTUGUESE PHARMACY BILL.—The Portuguese Minister of Public Instruction has prepared a Bill for the reform of pharmaceutical training and the exercise of pharmacy in Portugal. The following are the main features of the proposal. Pharmacy is to be taught at a special school, connected with the Medico-Surgical College already existing in Lisbon. The instruction is to be divided into three sections: natural history and pharmacy; pharmacy and practical pharmaceutical chemistry; toxicology. The first and second sections will form part of the instruction during the first year, and the second and third sections during the second year. The pharmaceutical students will be required to follow also the courses given at the Medico-Surgical College, in so far as they refer to matters connected with pharmacy. At the end of each year the students will submit to an examination, which they must pass in order to obtain at the end of their studies the "acto grande," or great diploma of the final examination. When the student has obtained that diploma, he must serve for two years in the establishment of a qualified pharmacist before he can

open business. Five years after the opening of the new school of pharmacy the students who have graduated in it will have the preference over pharmacists under the old law in the competition for any appointments in the public service, such as naval and military pharmacies, situations under the municipal bodies, the public health service, &c. To be admitted to the school of pharmacy, the pupils must have passed in Portuguese, French, Latin, and logic at any public school of the kingdom.

THE BRITISH DENTAL ASSOCIATION will meet in Exeter this year. The Art Gallery of the Albert Memorial Museum is selected for the sittings, which will be held on August 29 and three days following.

THE CHILIAN IODINE INDUSTRY.—It is found that in every 100 kilogrammes of impure nitrate there are 50 grammes of iodine, which the water used in the crystallisation of the nitrate, called, technically, "aqua vieja," holds in solution. In order to extract the iodine, this "old water is drawn off into a separate tank and charged with sulphate of soda," producing a chemical reaction, which forms the iodide of sodium, by precipitating the iodine, which, containing more or less impurities, is refined by sublimation and condensation. During the ten years ending December 31, 1888, the exports of iodine amounted to 1,588,074 kilogrammes, with a total value of \$19,333,757, upon which the Government collected in export duties \$1,172,576.

MR. GOULD'S ELM TREES.—Dalmatian insect-powder was recently experimented with in destroying swarms of insects which infested the large elm trees at the country residence of Mr. Jay Gould, the American financier, on the Hudson. Various efforts had previously been made with other insecticides to save the trees without success, when a gentleman named Beebe, who has great faith in insect-powder, made a contract with Mr. Gould to preserve his grove intact, and by the free application of the Dalmatian powder succeeded beyond the most sanguine expectations. All the gardeners in that neighbourhood are now using the powder on plants and trees of every description. [Recently we have had the opportunity of trying insect powder on green fly, which is extremely plentiful this year, and have found it to be very successful. We think that chemists may confidently recommend it for this purpose, selling it preferably in bellows.—*Ed. C. & D.*]

GERMAN v. SWISS ANTIPYRIN.—A lawsuit concerning the infringement of the patent for "Dr. Knorr's antipyrin" which is held by the dyeworks, "formerly Meister, Lucius and Bruning" in Höchst-on-Maine, has just been decided by the "Landgericht" of Hamburg. The complainants were the holders of the patent, and the defendant Mr. Erwin Kunhardt, proprietor of the wholesale drug firm of G. Lippmann and Geffcken, in Hamburg. The case against Mr. Kunhardt was that he had been in the habit of ordering "antipyrin" from a firm in Basle, Switzerland, who also manufacture the article, and sold the Swiss drug to customers of his in Germany, thereby infringing the rights of the holders of Dr. Knorr's patent. The value of Swiss antipyrin purchased by Kunhardt in the course of about a year was said to be from 7,000m. to 8,000m. The Basle drug is cheaper than the German, but it is regarded in Germany as a pirate article, and may not be sold there. Mr. Kunhardt's defence was that he purchased the Basle antipyrin for export only, and kept it stored at his bonded warehouse, and that, moreover, he was not aware that Dr. Knorr's antipyrin was protected by patent in Germany. It was shown however, that the defendant's firm had supplied the Basle antipyrin to a pharmacist in Kiel, Germany, who had secured a contract of medicines for the Navy and that the packages sent to Kiel bore the inscription "May not be sold in Germany." The public prosecutor demanded that the defendant should be fined 1,000m. and that the sentence should be publicly advertised. The counsel for the Höchst factory demanded an additional fine of 700m. on behalf of that firm. The defence suggested that there was no case, and demanded acquittal. In the end Mr. Kunhardt was found guilty and fined 300m., or in default thirty days' imprisonment. He was also condemned to pay the costs, and an indemnity of 700m. to the Höchst factory, and to the advertising of the sentence in a Hamburg public journal. The stock of Swiss antipyrin was confiscated.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

FOREIGN STUDENTS IN PARIS.—There are at present 1,071 foreign students in this city. They are divided amongst the six leading schools. The Faculté de Médecine claims 729, and the Ecole Supérieure de Pharmacie 23 only.

A LIMITED COMPANY AS MANUFACTURING PERFUMERS.—Under the style of the "Société Franco-Américaine pour la Fabrication des Parfumeries extra fines and savons de toilettes," the well-known firm of Deleltrez (Ch. Blanc & Cie.) is to be converted into a company. The capital is advertised at 240,000*l.* in 12,000 shares of 20*l.* The owners of ten shares are to have "founders," rights in the concern, which seems to mean 20 per cent. of the profits.

DEATH OF A PROMINENT FRENCH PHARMACIST.—French chemists have sustained a loss by the death of M. Parisot, of Belfort. Himself eminent in the profession, the deceased gentleman belonged to a family of pharmacists, the business he owned having been established by an ancestor more than 200 years ago. Always popular amongst every class, M. Parisot is especially remembered by his unselfish devotion during the bombardment of his native town by the Prussians in 1870. He leaves two daughters and a son.

AN "ARAB STEED" GOES FOR PHARMACY.—On Sunday morning last M. Lesfargues, chemist, Dijon, saw with more surprise than pleasure a horse careering wildly towards the front window of his pharmacy. A pile of packing-cases outside fortunately averted a serious disaster. The owner of the animal proved to be M. Sadi Carnot, son of the President of the Republic, and lieutenant in the 27th Regiment of Infantry. M. Carnot had been thrown, but fortunately sustained only slight contusions. After receiving attention from M. Lesfargues he was able to ride away. The horse is one of the "Arab Steeds" presented to the President by the Emperor of Morocco.

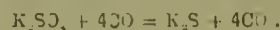
PERFUMED ESSENCES IN SUBCUTANEOUS INJECTIONS.—Dr. J. Roussel, author of "La Transfusion du Sang," &c., is advocating subcutaneous injections in pulmonary phthisis, &c. He has employed perfumed essences, such as the antiseptic eucalyptus, successfully; also sedatives, such as the orange, verveine, and heliotrope in nervous disorders. The great advantage claimed for the injection of these essences is that they agreeably perfume the body, at the same time being substitutes for morphine without any of the dangers of that drug. Dr. Roussel states that during the last ten years he has employed on his patients "subcutaneous injections" of "injectible arseniate of strychnine" in exceedingly small doses. He considers the effects are never dangerous, but always fortifying and stimulating.

A DOCTOR IN COURT.—A doctor, holding a diploma of the Faculty of Boston, was brought up at the police court last Saturday to answer a charge of swindling. He gave the modest name of Marie Georges de Cramansel de Belloc. His mode of operating was the old and generally successful one of getting goods on credit and selling them for what could be got. Amongst the victims who appeared to give evidence, M. William Hausser put in a claim for a microscope worth 10*l.*, M. Eliacrs for a mechanical arm-chair valued at 7*l.*, while the firm of Collin-Charrière had furnished surgical instruments to the extent of 22*l.* All the goods were traced to second-hand dealers. The magistrate regretted the doctor's inability to make ends meet honestly, or to justify his dubious conduct, and sent him to prison for thirteen months.

FORMATION OF ALKALINE SULPHIDES.—M. Berthelot, in a communication to the Academy of Sciences on the reduction of alkaline sulphates by hydrogen and carbon, states that the first effect of hydrogen upon the sulphate—*e.g.*, potash—is to form potassium hydrosulphide and potassium hydroxide. The former in the next stage decomposes into potassium sulphide and sulphuretted hydrogen, and the latter combines with the caustic potash to form again potassium hydrosulphide and water. Another reaction takes place between the alkaline sulphide and water vapour, viz:—



The reduction by hydrogen takes place at a comparatively low temperature. M. Berthelot also shows that solid carbon, even at a very bright temperature, fails to react with the sulphate, but that carbonic oxide at a bright red heat reduces the salt according to the equation—



GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

ANTIDIPHOTHERIN is the name of a medicinal speciality which has lately been introduced in Germany. Dr. A. Donner finds that it is a mixture of 4 parts of ferric chloride and 96 parts of potassium chlorate.

LYSOL is a new rival to creolin and carbolic acid in the disinfectant line. It is of the consistence of soft-soap, and is made from coal-tar, with fatty and resin soaps. It does not contain phenol.

A SINGULAR FATAL POISONING CASE—*not* by the fault of the dispenser—is reported to have occurred in one of the hospitals in Nuremberg. Instead of phenacetin a patient was given 10 grammes of sublimate, and of course died.

PYOCTANIN, first recommended by Stilling, is now the subject of some varying reports. Dr. Braunschweig calls attention to disagreeable symptoms of irritation which are produced, and to the small degree of success he obtained with it.

PROFESSOR A. W. VON HOFMANN, the famous chemist has been the subject of the latest celebration. The occasion of the commemoration was the 25th anniversary of the Professor's return to his native country from England. In order to show their appreciation of what he has done for the chemical industry, and specially for the aniline department, the coal-tar colour manufacturers of the whole of Germany sent representatives to Berlin to express their gratitude for his invaluable services. The delegates proceeded to the residence of Professor von Hofmann under the conduct of Dr. Caro, of Mannheim, as the representative of the largest and oldest of German aniline works. Besides the customary address, a picture of the professor, painted by Angeli, was presented to him, which will be hung in our National Gallery.

THE INTERNATIONAL MEDICAL CONGRESS continues to attract attention and it is stated that 5,000 to 6,000 visitors are expected to be present. Of course the opportunity will be seized to make a great show of all the new remedies brought forward in the Exhibition. Besides these, and in order to give uniformity and completeness to the representation of what has been done in therapeutics, the Imperial Health Office will arrange a special section, and the contribution of specialities or patents or drugs is invited for exhibition (in single specimens) in this department. Holland, Mexico, Spain and other countries will send national delegates, while visitors are announced from the United States, Cuba, Brazil, Australia, Japan, China, the East Indies, Egypt, &c.

ANILINE DYES IN MEDICINE.—Since with the introduction of colouring agents as antiseptics what may be called a new step was taken, or rather, perhaps, a new source indicated, for remedial agents, we may expect to soon find other substances obtained from the same class and brought forward as medicaments, the value of which may exceed that of the first found. We have now to note methylene blue which is claimed to possess analgesic properties. Those who have a great admiration for blue blood should seize the present opportunity of obtaining it cheaply since 2·8 grains in gelatine capsules besides relieving them of muscular or articular rheumatic pains passes so rapidly into and through the circulatory system that an hour at the latest after the dose the urine is coloured pale green, then bluish-green, and after four hours a fine aristocratic deep blue. As is always the case with remedies recommended by the discoverer, no unpleasant secondary effects were observed even after continued use. Drs. Ehrlich and Leppmann, who investigated the medicinal properties of the substance, tried at first to administer it as a hypodermic injection but without success, as they could not get a sufficiently strong solution.

Pharmaceutical Society of Great Britain.

ANNUAL MEETING OF THE NORTH BRITISH BRANCH.

THE meeting on Wednesday afternoon was not an imposing one by any means, only eleven members and the assistant secretary being present. Mr. Wm. Gilmour, chairman of the executive, presided, and his supporters were Messrs. Gibson (Edinburgh), Maben (Hawick), McAdam (Glasgow), Mackenzie (Edinburgh), Nesbit (Portobello), J. B. Stephenson (Edinburgh), Storrar (Kirkcaldy), Watt (Haddington), McLaren (Edinburgh), and Lindsay (Peebles). The minutes and some letters of apology were read, then the chairman reviewed

THE WORK OF THE YEAR.

It had been a quiet year, he said, but some important questions had been considered, and good had resulted from the discussions. Referring to the subjects dealt with in the annual report, he mentioned that there had been no further change in the manner of conducting the examinations. The dispensing in the Minor now embraced nearly two hours' work instead of one hour's. This gave both examiner and candidate a better chance, as, if the candidate failed with the first prescription, he had a chance with the second. That was fair to the examiner and doubly fair to the candidate. It did not make the work heavier for him, and, although it took up two hours of time, that was not too much to estimate the capabilities of a young man. This rule had worked very well, he considered, during the last twelve months. (Applause.) In connection with this they would have seen the Government visitor's report. It was a very favourable one; but Sir Douglas MacLagan had again pressed upon them the necessity of a curriculum—a curriculum that would, he (the chairman) believed, not entail any great hardship upon young men, showing what they were to be examined upon, and thus prevent them frittering away their time to a great extent. What he desired was that a proper schedule or syllabus should be prepared so as to guide them in their studies, that certain scales he recognised, and certain standards inserted in connection with the syllabus. Failures had been, he was sorry to say, upon the average very heavy, but fewer than last year. The evening meetings had been very interesting. They opened with a very good paper from Professor Fraser, and finished with another, peculiarly interesting, by the vice-chairman, Mr. Storrar. They had had other valuable papers, but they found they were indebted greatly to members who contributed year after year to fill the places of those who promised, but failed to fulfil their engagements. He himself was prepared to give a paper, but unfortunately he was prevented through illness. He might say there was a growing difficulty in connection with these evening meetings. He found that those in the position of manufacturing chemists, and who were able to give them papers, and willing to do so, did not come forward. The secrets of their trade, which they disclosed formerly, they now kept to themselves; and he could not blame them, for competition was so keen. Mr. Gilmour then referred to the necessity for increasing the accommodation for books in the library, this being necessary owing to the accumulation of volumes, the greatly increased circulation, and more liberal use of the library for consultation. Next he referred to the attendance during the year (3,036), and the excellent state of repair which the building is in, which he characterised as "a good going concern." Turning to the consideration of pharmaceutical politics, he said that the executive had not been regardless of the interests of the trade. They were all aware that methylated spirit was not allowed to be sold on Sundays. (Applause.) Extraordinary stories went about at one time. A town councillor said that one chemist alone sold two gallons of methylated spirit before church time. He (the chairman) challenged the statement, and said it was a deliberate falsehood. It was ridiculous; but the town councillor was bound in duty to give the name of the seller to the excise officer and see the proper penalty was enforced. He himself had not been asked, for six months at a time,

for methylated spirit on a Sunday, and he had no doubt other druggists would say the same. There was a Bill before Parliament to limit the quantity sold to a quart, but that had not been insisted upon. Indeed, it would be hard upon a person to buy a quart of methylated spirit; in fact, it would be a temptation to drink it. Next referring to the Wheeldon case, Mr. Gilmour said he looked upon it as a right decision. He knew a great many differed from him, but he thought the decision had caused more alarm than was really necessary. It looked worse at the first glance, and it was remarkable that the medical journals were coming to look at it much in the same direction. The *Lancet* had written recently upon unqualified assistants to doctors; but it did not take the chemists' standpoint. It took the standpoint that their customers did not like it; they liked to see the principal. It was not that they were wrong, but that their customers objected to it. He thought that this very movement amongst the medical men showed that the chemists were moving in the right direction. It was not right, he held, to leave a shop in unqualified hands. Mr. Kinninmont had asked the meeting to express opinion upon the new Pharmacy Bill, and although it was not exactly before them, he might say of the old Bill that no one regretted it had died a natural death. He hoped the new Bill would be a better one and more comprehensive. In conclusion, he had to congratulate the members on the election of Mr. Storrar to the Council. (Applause.) It had been one of the most cheering things to see the feeling that had been evoked in connection with his election. It had been hearty and spontaneous, and it had done good in this way—that it had given them a common interest in one of themselves, and notwithstanding the fact that he was a country druggist. He did not use the expression in any sense of disparagement. (Laughter and applause.)

THE ELECTION OF THE EXECUTIVE.

The SECRETARY then submitted the report of the scrutineers who had examined the voting papers for the election of the executive for the ensuing year. This showed that 299 nomination papers had been issued on May 31. The nomination papers returned showed that 43 members and associates in business had been nominated, of whom the 24 whose names are given below signified their willingness to act if elected. Three hundred voting papers were accordingly issued on June 7, and of these 150 were returned and recorded. The following was the result, the figures in the second columns being the votes which were given last year:—

	1890-1	'89-90		1890-1	'89-90
*Gilmour, W., Edinburgh	127	127	*McAdam, R., Glasgow	99	91
*Maben, T., Hawick	127	119	*Gibson, A., Edinburgh	93	111
*Kinninmont, A., Glasgow	127	130	Kermath, W. R., St. An-		
*Boa, Peter, Edinburgh	123	128	drews	93	—
*Nesbit, J., Portobello	121	118	*Lawrence, S., Oban	83	103
*Stephenson, J. B., Edinburgh	121	119			
*Frazer, D., Glasgow	117	115	*Thompson, T., Edinburgh	83	83
*Hardie, J. M., Dundee	117	121	Ewing, J. L., Edinburgh	72	—
*Kerr, C., Dundee	117	96	Johnston, J., Aberdeen	60	—
*Strachan, A., Aberdeen	116	128	Gilmour, D., Dunfermline	58	—
*Paterson, J., Aberdeen	107	119	Coats, J. T., Edinburgh	46	—
*Fisher, J. H., Dunfermline	101	113	Davison, T., Glasgow	41	—
*Mackenzie, J., Edinburgh	101	103	Coull, G., Edinburgh	37	—

* Those marked with an asterisk were members of the retiring executive.

The report was signed by Messrs. R. Aiken, W. Burley, C. F. Henry, and J. Robertson, who had acted as scrutineers. The last six were not elected, and as Mr. Lawrence and Mr. Thompson tied for the eighteenth place their fate had afterwards to be determined by lot. Mr. Kermath is the only new member of the executive. He used to be on the old council of the branch.

Mr. McLAREN, Edinburgh, in moving the adoption of the report, expressed the pleasure one and all had in the position that Mr. Storrar had taken at the recent council election. He was glad to see that not only the Kingdoms of England, Scotland, and Ireland were represented, but so also was the Kingdom of Fife. Mr. Storrar was long in coming forward as an active working member of the Society, but since he had come he had left his mark. As to the report itself, he

regretted that one half of the members in Scotland who had the power to vote had not taken an active part in this election. He did not know if he was touching upon dangerous ground if he asked how it was the examiners of the Society were allowed to go on their board, while in London they were not. He would say that what was good for the goose was good for the gander. He would, however, say they had a body of men who had the interests of pharmacy at heart. As to the compulsory curriculum, he thought it would be a very wise step indeed that a course of study should be laid down for candidates. At present questions were asked over a very wide field and on very broad lines.

Mr. LINDSAY (Peebles) seconded the motion, which was adopted.

Mr. WATT suggested that, instead of the chairman exercising his casting vote for the eighteenth place, a lot should be drawn. The names of Mr. Lawrence and Mr. Thompson were then put in a hat, and, on the chairman drawing out the first, he declared Mr. Lawrence elected. The first seventeen names in the above list accordingly form the executive, along with Mr. Michael Carteighe, president; Mr. Alexander Bottle, vice-president; and Mr. David Storrar and Mr. James Watt *ex officio*.

MR. STORRAR RETURNS THANKS.

Mr. STORRAR, who was warmly greeted, said he had to take this opportunity of thanking them for the support they had given him at the recent election. He had now been put in a position of less freedom and greater responsibility—(laughter)—and must take care what he said; but he could not go wrong in saying that he appreciated very highly the compliment paid him. He believed it was not a personal honour, but a kind of recognition of their English friends of the Scottish claim for more representation. He was sure all would agree that it had been courteously and pleasantly done. For himself, he appreciated very highly the recognition they had given to their claim. He could only say in regard to the Council that his experience had been so little that he could say almost nothing—he must refer them to his friend and fellow-colleague, Mr. Watt, regarding the doings of the Council. But he found already there was a very great deal of hard and interesting work going on in the Council of the Society. As he was on his feet, he might say they all united in congratulating their chairman, Mr. Gilmour, on his recovery from the severe illness under which he had been labouring for some time—(applause)—and congratulate themselves that he would be able to fill the chair for another year. They had been lucky in the North British branch in having men competent and willing to do pharmaceutical work in Scotland. They had had many good chairmen, but not a better than Mr. Gilmour. Regarding matters pharmaceutical in Scotland, Mr. Gilmour had gone over the ground very carefully; but there was one point to which he (Mr. Storrar) might be allowed to say a word, and that was with reference to the evening meetings. They could not help noticing that during the last session their energetic secretary, Mr. Hill, had great difficulty in securing papers; and when these papers were secured, there was difficulty occasionally in getting an attendance. Some efforts should be made to improve on this point during the coming session. It was a pity that on the occasion of such a paper as that of Professor Fraser at the opening meeting, there should not be a fair turn-out to join in the discussion. He might further remark that it was a pity the Scottish executive should have so little to do. They were told by a very distinguished person that “Satan found mischief still for idle hands to do.” That was no reason why the executive should do so little. They had got into the position of being looked upon with a little suspicion by the Council. He was not much of a Home Ruler, but he thought there should be some decentralisation. Something might be carried out in this new Pharmacy Bill; and the new executive might turn their attention to assist the Council in its framing and carrying out. The executive might very profitably spend their time in increasing the number of their membership in Scotland. Instead of 300 members they should be double that number—indeed, Mr. Carteighe had indicated that there was a distinct promise to that effect when these premises were secured. He had nothing further to add, but that they give Mr. Gilmour a hearty vote of thanks for his past services.

SCOTLAND AND THE SOCIETY.

Mr. WATT said that the fate and fortune of the trade in Scotland were bound up with the Society. A number of them thought not, but he had no doubt it was so. The President made a very passionate appeal to them after the last meeting to endeavour to raise the membership of the Society in Scotland, and he should like to see that accomplished during the next year. There were, no doubt, many obstacles in the way, but he thought matters looked more hopeful for the future. They were aware there was a new Pharmacy Bill to be introduced, and there was a mode proposed by the President of making by-laws so as to increase the membership of the Society. That was hopeful. The state of the Council now was more favourable to the position of trade interests. The new Bill would be placed before them, and he hoped they would take it into their consideration and give them their opinion upon it. He was sorry there was such a small meeting that day, for if they were to do anything together there must be some bond of union among them, either by meeting together, dining together somewhere—(hear, hear)—holding a conversation, or something or other, in order to bring them into harmony with one another. At present they were something like a rope of sand. (Applause.) With reference to Mr. McLaren's question about putting Scottish examiners upon the executive, he would only remind them they had a limited area, and could not afford to dispense with such talent. In England there were about 2,500 members to choose from. In Scotland they had only 300 to choose from, which made a great difference. In that way they could not afford to dispense with the examiners upon the executive.

Mr. NISBET, Portobello, said it did seem incongruous that examiners should be on the executive, but he entirely agreed with what Mr. Watt had said. The new Bill, he thought, should be sent down to the local secretaries, so that it might be discussed in the several localities.

Mr. WATT then moved a vote of thanks to Mr. Gilmour for presiding, and the proceedings then terminated.

PROCTOR'S "MANUAL OF PHARMACEUTICAL TESTING."

THE *Union Pharmacutique*, of Paris, contains a review of the above, in which the writer says:—"This manual is destined to serve as a guide to English pharmacists in the examination of the chemical products of the British Pharmacopœia. The author also devotes some articles to drugs or preparations the qualitative analysis of which can be accomplished by simple processes. Sometimes he recommends the methods given by the Pharmacopœia itself, and advises that these should be followed even servilely when there would be inconvenience in doing otherwise—as, for example, in the assay of opium or cinchona; but what he aims at especially is to discover methods, not so much for a complete quantitative analysis, but by which may be ascertained, in a few moments, whether the product is sufficiently pure for therapeutical use. A product not answering in a satisfactory manner the tests here proposed ought to be rejected, at least until fuller information is acquired. The manual is distinguished by great clearness, and by the simplicity of the means of operation, necessitating neither special apparatus nor acquired skill." As a specimen of the articles, the section on the testing of iodide of potassium is then quoted.

Opinion of a purchaser:—"The Manual of Testing' is first-rate; makes pharmaceutical testing easy and interesting." (71/69.)

LIQUID BUG-DESTROYERS act by suffocation rather than from any poisonous property which may be inherent in the solution. The breathing-pores of the bug are protected by hairs covered with an oily exudation, and through these water is unable to penetrate. Liquids like alcohol and turpentine dissolve this exudation, and so enable the insect to enter the body, and the insect dies by suffocation. So says the *Druggists' Circular*, and it questions the good of corrosive sublimate.

THE PRESIDENT'S CAMPAIGN.

AT THE EAST-END.

THE President of the Pharmaceutical Society was "billed" to appear at two meetings on Tuesday last—first at the Victoria Park Hospital in the East, at 3 P.M., and then at a nice public-house in Ossington Street, Bayswater, at 9 P.M. This was the opening of the crusade with the undefined purpose which we announced last week. The purpose of it remains undefined, and is likely to remain so unless we should decide to elucidate the problem by means of a post-card competition.

Two Carteighe meetings in one day were too strong a dose for the most seasoned member of our staff; it was found necessary, therefore, to divide the work of listening to the pharmacy chief. The man who got the evening job was regarded as a lucky one, partly because of Mr. Long and partly on account of the public-house; but the other man had the satisfaction of feeling that he was present at the inauguration of a great work, though he was not quite sure what it was exactly. Sadly but heroically he plodded up to Victoria Park. There he found the hospital in a vast space enclosed by an apparently interminable iron fencing. To find the entrance he had to fetch a considerable compass, and this made him late. The meeting was in full swing. It was held in the comfortable board-room of the hospital; the eloquent Mr. Fitch, of Hackney, was in the chair, and there were between forty and fifty persons present, including a faithful little squad from Bloomsbury; but the President was not supported by any fellow-councillor. The staple of his discourse, which lasted nearly an hour, and was supplemented by numerous other disquisitions in reply to questions, was a history of pharmaceutical legislation. The defects of the present pharmacy law in this country were shown to be due almost entirely to the opposition with which the United Society of Chemists and Druggists met the Pharmaceutical Society's efforts. The moral of this somewhat ancient history was hinted at later on. It appeared to be that chemists of the present day should never oppose anything which the Pharmaceutical Council may decide to be good for them. The Wheeldon case was dealt with at some length, its exposition involving an exhaustive summary of the case which the Society fought up to the House of Lords, and into that was interjected a concise biography of Earl Selborne. Allusions to the wickednesses of "the pharmaceutical press," and the weather-beaten old joke that "they have to make a living, like the rest of us," were thrown into the narrative, apparently as reliefs, but the humour of the remark did not seem to be appreciated. It was stated that these pharmaceutical journalists who "have to make a living, like the rest of us," get it by fomenting discussions in the trade. There may be some mysterious object in observations of this character; but their truth and policy are not apparent.

The first question was put by Mr. Dwyer, who asked whether oilmen were entitled to sell Kay's essence or Brown's chlorodyne. The President replied in an involved speech which nobody understood; hoped he had made himself clear, but trusted that no further questions would be asked on that topic. But Mr. Dwyer said he only wanted to know whether these preparations were or were not to be regarded as patent medicines exempted by the Act. Mr. Carteighe said he thought it would be safer to suppose at present that they were, but he had reason to believe that some action in regard to them would be taken before long by persons outside the trade. Then followed various questions. Mr. Barnard spoke on the extension of the Pharmacy Act; Mr. Holmes asked whether surgeons keeping shops were affected by the Wheeldon case, and Mr. Carteighe said he thought they were; Mr. Kirk asked what was "knowing" a customer, and Mr. Atfield and some others spoke about earlier closing. Mr. Fitch (the chairman) gave some amusement by reading letters he had written to the member for his borough and the Chancellor of the Exchequer about the extra 6d. on spirits. Sir Charles Russell said there was something in the complaint, but advised that chemists should get the difference out of their customers. The Chancellor's secretary wrote a long letter evading the real point, which

was that chemists had to pay a special tax for the benefit of the community. Mr. Fitch drily added that if Mr. Goschen had had 13,000 letters like his that week the tax would not have been put on chemists. Then a gentleman, who said he came from Hastings, but now lived in the city of London, said some practical result should come from this meeting. They ought to gladden Mr. Carteighe's heart with subscriptions. Promptly a resolution was moved and seconded, vaguely pledging all the resources of the eastern chemists to the work of the Pharmaceutical Society. Mr. Carteighe thought this was putting it too definitely, and at his suggestion the resolution, after much tinkering, declared only that the Society was deserving of support. Then followed some votes of thanks, and the blessed air was reached at about a quarter-past five.

AT THE WEST-END.

Leinster Hotel, Ossington Street, Bayswater, is the place where the chemists who respond to Mr. Henry Long's artistic invitations are wont to gather. The street is a modest one, not fashionable by any means, and the hotel is not a gilt palace. It has a beer-bar in the corner shop, and a six-foot portico for a public entrance. But these were not the attractions on Tuesday night. The President of the Pharmaceutical Society "has promised to honour us with his company," wrote Mr. Long to his "constituents" in North Kensington; Mr. Frederick Andrews, the secretary for South Paddington, also cast this tempting bait to the pharmacists in his division, and we understood from Mr. Long that South Kensington and North Paddington had also been angled. But the little room in the Leinster was a dead blank at ten minutes to nine; there were about a score of chairs round the walls, and a substantial mahogany chair in the centre, when our man discovered the quarters of the West-end pharmacists. Returning again in ten minutes, he was received courteously by Mr. Long and Mr. Andrews, and then members began to drop in one by one until a baker's dozen had assembled to receive Mr. Carteighe. Mr. Long was in his best form, and managed the introductions, when these were necessary. "Ah! we are going to have a good meeting," said he, as the dozen was passed, and when he took the chair, with Mr. Carteighe on his right, we felt that we were in for it. Mr. Long under the guidance of Mr. Carteighe is one thing, but Mr. Long untrammelled eclipses himself. He had trod on the business end of a tin-tack the day before, so he kept his seat while he fired off a twenty minutes speech, explaining how the Pharmaceutical Society was founded, congratulating Mr. Carteighe on his election at the top of the poll, discussing the present condition of the drug trade—how it used to give us bread and cheese, but now the cheese is gone; and then he branched off to limited-company pharmacy, and his idea of having an association of chemists for the whole of London. What would it do? Why, give us short hours, put up the shutters—he had none—pull down the blinds—nor had he these; but put out the gas he would, and go out and take a walk. Once he had got up at half-past five in the morning to attend an early-closing meeting, and for twenty years after he had closed at eight o'clock. Now is the time for doing something like that again. Ye chemists of North and South Kensington and North and South Paddington, now is the time. Rouse ye, combine, form an association, meet on Tuesdays in this 4s. room, regulate prices, and "do all that sort of thing, you know." Quite so, added Mr. Andrews; the first hour to business, then a smoke and sociable talk.

The audience meanwhile had been increasing by ones and twos, and it was necessary to bring in a chair now and then. Mr. Long was doing his best to make the meeting sociable, and greeted each man as he came in so that the modest arrival blushed, and others smiled response. But the official reporter was hard at work all the time; and no doubt the meeting will look a formidable one on paper, especially as Mr. Carteighe took its size exactly, and gave us a well-pitched, straight talk, with nothing of the harangue about it, and less than usual about the foundation of the Pharmaceutical Society and the history and progress of pharmaceutical legislation. With the exception of a few interruptions from Mr. Long, who made several little speeches while he was on his feet, Mr. Carteighe had the floor for twenty-five minutes, and his audience numbered twenty-four. First he told us now necessary it is to have union amongst

chemists, and how difficult it is, and always has been, to get it. The enemies to it are within pharmacy, not without. Then he emphatically laid it down that chemists are an educated body, and their only hope of salvation is to pose as such before men. The remedy for "cutting" is to teach the public to value the services of the chemist. In his opinion a dose of castor-oil may be worth 100 guineas at night to a city man in the suburbs. How can it be made so? Is it by chemists telling people that their drugs are pure, and so on? No, Mr. Carteighe replies, that is the wrong tack. The purity must be taken as a matter of course: it is the personal qualifications of the chemist, the value of his services, his devotion to the public good, which must be put in the front; and if that is done long enough, the result will be that the public will cease to regard him in the same light as the grocer and the butcher are regarded, so far as prices are concerned, and more in the nature of the doctor. All this was put in an exceedingly incisive manner. The speaker for the time being put his audience in the place of those who say that pharmacy is going to the dogs, and he told them plainly that it was their own fault. They must keep up prices, not be apologetic when complaints are made about them, appeal to customers' reason if necessary, but maintain the dignity of the craft, and suffer a little pecuniary loss rather than allow the hogey of the stores and the cutter to influence the sacred rights of their calling. Then we had a few examples of how it is done, and the information that the flowing tide is with us—that people are getting tired of the stores. From this Mr. Carteighe wandered on to the Wheeldon case, and emphasised the importance of the decision to the trade. In this matter he holds exactly the same opinions as those of THE CHEMIST AND DRUGGIST, so we need not repeat what he said. This decision is all very well, said Mr. E. R. Marsh, after Mr. Carteighe had sat down, and Mr. Long had fired off another little speech bristling with "You knows," but where are we to get qualified assistants? There's not enough of them. Couldn't you get a sort of assistants' examination—something to qualify for the sale of poisons, but not to keep open shop? Mr. Carteighe quickly exposed that fallacy, Mr. Andrews backing him, but saying that 5,000 or 6,000 qualified assistants are wanted, but cannot be got. Mr. Watson came to Mr. Carteighe's aid with the remark that if the proposal were carried out, it would be repeating the 1868 business, as regards the modified examination, over again. Then we had a very good speech from Mr. R. H. Parker, of Maida Vale, who thinks the proper plan is to fall in with the Wheeldon decision, enforce it to the letter even to restricting the sale of arsenical pigments and wall-papers to chemists. That would be good for the public, and not bad for chemists. It is a stupid policy for chemists to discourage the sale of poisons, to refuse to sell, and thus drive people to buy of those who cannot legally sell. Then Mr. Parker got on to patent-medicine stamp anomalies, and the exemption of chemists and druggists from jury-service. We had a long explanation from Mr. Carteighe about the last matter: there is a Bill now before Parliament for the exemption of firemen, and somebody thinks this is the chance for chemists. Mr. Carteighe is not of that way of thinking, but he advises all chemists to claim exemption at the proper time, and they will be astonished to find in most cases that they will be exempted. "We'll blow a cloud now," said Mr. Long, and he proceeded to do this while Mr. W. Pickard, of West Kensington Terrace, began to speak about the membership of the Pharmaceutical Society, and a half-guinea subscription instead of a guinea. Then there was a sixpenny collection for drinks, and while we were waiting for the two bottles of Scotch and one of Irish, we had a general talk. It was a very quiet meeting on the whole: Mr. Long gave us a laugh now and then, and Mr. Carteighe made one joke, but the audience as a whole did not appear to be very enthusiastic. They had come there as a personal compliment to somebody, they listened to the speeches, smoked, &c., and that was all.

Mr. W. R. WARNER, of Philadelphia, is with us again for a time.

TEST FOR ANTIPYRETICS.—One gramme of exalgine dissolves completely in 2 cc. of chloroform in the cold. Antifebrin and phenacetin remain undissolved.

Personalities.

MR. JOHN MACCREATH, 47 Victoria Street, Newton Stewart, has disposed of his business to Mr. John P. Wilkie.

MESSRS. DUNKLEY & ROGERS have succeeded to the business of Mr. G. E. Butler, of 55 High Street, Tunbridge Wells.

MR. G. HEATON, chemist and druggist, has been appointed clerk to the Siteby Burial Board, in succession to the late Rev. J. Haigh.

MR. WALTER SLOANE GALBRAITH, chemist and druggist, 7 Cafrera Place, and 52 Paisley Road West, Glasgow, has been appointed a justice of the peace for Renfrewshire.

MR. THOMAS CHRISTY has again come back into our midst from his Eastern travels. He has collected a wonderful variety of new and interesting drugs during his visits of exploration to the Constantinople bazaars, and may by-and-bye favour the drug trade with some notes concerning these.

PROFESSOR HUXLEY was decorated with the Linnean Medal at the anniversary meeting of the Linnean Society. He is the fourth recipient of the medal. The others are Sir Richard Owen, Sir Joseph Hooker, and Professor Alphonse de Candolle.

THE Paris Society of Pharmacy has the following amongst other names on its list of corresponding members: Attfield, London; Collins, London; L. Evans, London; W. Gregory, Edinburgh; Griffith, Dublin; T. H. Hills, London; Robert Kane, Dublin; Prescott, London; Redwood, London; Robertson, Edinburgh; G. W. Sandford, London; Simmonds, London; and Warrington, London. This list was last revised in 1884, and there is no means of knowing who have taken the places of those who have died. So says a correspondent of the *Pharmaceutical Era*. Even in 1884 the Society was not very smart. Professor Gregory was at that time numbered with the majority, so was Mr. James Robertson; and others whom death has removed are Evans, Griffith, Kane and Warrington.

MR. R. BREMRIDGE, JUN., son of the registrar of the Pharmaceutical Society, who is in residence at Magdalen College, Oxford, has occasion to be thankful that he does not indulge in an afternoon nap. On Wednesday afternoon, last week, a great noise was heard near the tower of the college, and inquiry showed that one of the gargoyles had fallen and had crushed through the roof into the room below. "The room in question," says the *Oxford Chronicle*, "happened to be the bedroom belonging to a set of rooms owned by Mr. R. Bremridge, an esteemed and talented demy of the college. The part of the roof struck by the gargoyle was immediately over Mr. Bremridge's bed, and the gargoyle itself landed in the middle of his pillow. The appearance of the bed was very strange, being literally covered with the pieces of the gargoyle—which had been broken by the shock of striking the roof—and the debris of wood-work, slate, and plaster which it had carried down with it. There can be no doubt that, had this accident happened when Mr. Bremridge was sleeping in the room, fatal consequences would have ensued."

THE SECRET OF THE PRAIRIE FLOWER.—The *St. James's Gazette* tells us that a complimentary luncheon, under the presidency of Mr. Stuart Cumberland, was given on Monday last, at the Hotel Victoria, to Mr. Hartley, better known as "Sequah," concerning whose surprising performances as a "healer" particulars were some time ago set out in the *St. James's Gazette*. Mr. Hartley is a Canadian, who has purchased a group of mineral-water springs in the United States, which enjoy a high reputation for the cure of rheumatism and some associated complaints. He states that he has succeeded in concentrating these mineral waters, and, after mixing them with some vegetable extracts which are favourite remedies with the Indians of the West, he calls the resultant compound "Prairie Flower." For two years or more "Sequah" has been travelling through the provinces, where he has been the centre of some remarkable scenes. He seems to be always sure of an attentive audience; and Mr. Stuart Cumberland ruefully related the impossibility of endeavouring to get anybody to attend an exhibition of white magic so long as "Sequah" was in the same town.

RAILWAY RATES FOR "DRUGS IN HAMPERS."

THE following is an abstract of evidence which was a part of that which was prepared for the Lancashire and Cheshire Conference of Traders, and though not submitted to the Commission orally, it was, we believe, put in for consideration, and will be published by the Conference in due course.

Mr. Oldfield (of the firm of Oldfield, Pattinson & Co.) said he had been thirty years in the trade, and offered evidence to the following effect:—

1. With regard to the proposals to raise drugs in hampers from class 4 to class 5, there is nothing to show why the rates should be advanced. The hampers are packed by experienced men, who do nothing else, and that it is an eminently safe class of traffic is shown by the fact that the aggregate amount of claims made by his firm during the past twelve months is only 4*l.* 10*s.* 8*d.* against all the railway companies who have taken their traffic: considerably less than a $\frac{1}{2}$ per cent. on the amount paid for freight.

2. The nature of the goods necessitates their being sent in such vessels as glass bottles and stone jars, and out of a gross weight of about a ton (19 cwt. 0 qr. 22 lbs.) sent out during a certain period, he had found that 12 cwt. 1 qr. 27 lbs. represented such packages, and on that ground he pressed for a reduction to at most class 3, as new glass bottles are in class 1. The average value of their consignments of drugs in hampers he found to be below 70*s.* per cwt.

The proportions of a 500-lb. order taken from their books, Mr. Oldfield says, would classify as under:—

Cwt. qrs. lbs.	Special Class.
0 1 0	C
0 1 14	1
1 2 0	2
1 0 22	3
1 1 12	4
0 0 3	5

These are gross weights, the actual net weights of goods being 351 lbs. only.

3. Prior to 1870 drugs in hampers were in class 3, and as the prices of coal and labour are at least down to the level of that time, a return to class 3 would be equitable, particularly as the prices of drugs and chemicals in 1868, compared with those ruling at present, were about double. Mr. Oldfield gives the following comparison of a few prices:—

	1868	Now
	£ s. d.	£ s. d.
Acetic acid	2 7 0	1 5 0
Boracic „	0 2 0	0 0 5
Carbolic „	0 4 0	0 2 0
„ „ pure	0 3 6	0 1 7
Oxalic „	0 1 0	0 0 5
Tartaric acid	0 1 9	0 1 4
Aloes „	0 2 6	0 1 3
Ammon. carbonate ..	0 0 9	0 0 4 $\frac{1}{2}$
„ bromid. „	0 0 0	0 2 2
Balsam tolu	0 3 0	0 1 8
Bismuth „	0 12 0	0 8 6
Cochineal „	0 4 0	0 1 6
Orange-peel	0 6 0	0 1 6
Cassia „	0 1 2	0 0 7
Precipitated chalk ..	2 0 0	1 4 0
Sulphate copper	1 18 0	1 6 0
Carb. sodæ	1 0 0	0 9 6
Dextrine „	2 10 0	1 0 0
Glycerine „	0 1 2	0 0 8
Quinine „	0 9 6	0 1 9
Borax „	0 1 0	0 0 4 $\frac{1}{2}$

* To be raised in class.

Syrups in bottles are in class 3, and these always constitute a large proportion of a drug hamper.

4. The classification proposed by the railway companies goes a long way to strengthen this view, as it will be seen, on going over their proposals, that, out of the 131 articles classified, in which druggists deal, no fewer than 113 are in and below class 3.

5. It is proposed to place empties in class 5. This is an

obvious injustice, as they are mostly composed of dirty glass bottles, and these, when new, are in class 1.

6. Mr. Oldfield urged that "smalls," under which most druggists' goods are carried, should be limited to 224 lbs., with, perhaps, a fixed charge of, say, 3*d.* per package additional.

Mr. G. S. Woolley (James Woolley, Sons & Co.), who has been 37 years in the drug trade in Manchester, submits the following evidence:—

To place drugs packed in hampers in the 5th or highest class, I look upon as an injustice, for the following reasons:—

1. Drugs so packed are not liable to damage. Our claims for loss by breakage are only about one-half per cent. on the annual amount we pay for carriage.

2. A large proportion of our goods are classed in classes C 1, 2, and 3; it is, therefore, difficult to understand why they should be placed in class 5 when they are packed in hampers.

3. A very considerable part of the gross weight of a hamper of drugs is made up of packages. It is not at all an uncommon occurrence for the weight of the packages to exceed that of the drugs carried. To be compelled to pay 5th class rate for hampers, straw, bottles, and jars is not equitable, and would constitute a grievous burden upon the trade.

4. About the year 1872 drugs in hampers were raised from the 3rd to the 4th class, the reason given for the advance being the enhanced price of coals and labour. During the long period of depression through which we have passed no corresponding reduction has been made. In the meantime, prices of drugs have fallen nearly one-half. For instance:—

	Sold in 1868 at	Sold in 1890 at
Acetic acid ..	40 <i>s.</i> 0 <i>d.</i> per cwt.	25 <i>s.</i> 0 <i>s.</i> per cwt.
Citric acid ..	2 <i>s.</i> 10 <i>d.</i> „ lb.	1 <i>s.</i> 6 <i>d.</i> „ lb.
Oxalic „ ..	0 <i>s.</i> 9 $\frac{1}{2}$ <i>d.</i> „ „	0 <i>s.</i> 4 $\frac{1}{2}$ <i>d.</i> „ „
Cod-liver oil ..	9 <i>s.</i> 0 <i>d.</i> per gal.	5 <i>s.</i> 0 <i>d.</i> per gal.
Bromide of potassium	6 <i>s.</i> 8 <i>d.</i> „ lb.	1 <i>s.</i> 8 <i>d.</i> „ lb.
Cyanide „ ..	2 <i>s.</i> 4 <i>d.</i> „ „	1 <i>s.</i> 4 <i>d.</i> „ „
Quinine ..	5 <i>s.</i> 3 <i>d.</i> „ oz.	1 <i>s.</i> 10 <i>d.</i> „ oz.
Borax ..	70 <i>s.</i> 0 <i>d.</i> „ cwt.	34 <i>s.</i> 6 <i>d.</i> „ cwt.
Zinc sulphate ..	28 <i>s.</i> 0 <i>d.</i> „ „	16 <i>s.</i> 0 <i>d.</i> „ „

These are only a few instances, and a large number of similar cases might be quoted. It follows, therefore, that traders have to do a much larger volume of trade to keep up their returns, and a reduction in the rate of carriage rather than an increase should be looked for.

It is also proposed to place returned empty packages in the 5th or highest class. Empty packages (drug trade) consist almost entirely of dirty glass bottles, stone bottles and jars, and tins. As new green-glass bottles (stoneware jars and bottles) may be omitted from the revised classification) are carried in class 1, our empties ought not to be placed in a higher class. The empties are heavy. As has already been shown, they frequently exceed the weight of the goods carried, and anything like the proposed advance would be simply ruinous.

A very large proportion of our trade is done in quantities known as "smalls." I would suggest, that instead of the railway company's proposals to charge double 5th class rates and double terminals for "smalls" (rates which are absurdly excessive), the actual weight should be charged at the actual class rate; but that, in order to cover reasonable expense of booking, a small additional charge should be made: 6*d.* has been suggested, but, in my opinion, this is too high, particularly for small parcels sent short distances. Also, I am of opinion that the limit of "smalls" should be 224 lbs.

SANDAL-WOOD OIL.—The Chinese were the first to recognise the properties of sandal-wood oil in the treatment of gonorrhoea, and for a long time they have refused to make use of any oil except that derived from Mysore sandal-wood. The Hindoos likewise use the oil of the wood obtained from this locality, and recent observations seem to indicate that the antibleorrhoeic properties of the oil from this source are especially marked.

Legal Reports.

THE FRUIT SALT CASE.—ENO *v.* DUNN.

JUDGMENT OF THE HOUSE OF LORDS.

JUDGMENT was given in the House of Lords, on Thursday, in the case of *Eno v. Dunn*. Mr. J. C. Eno, the proprietor of "Eno's fruit salt," appealed against an order of the Court of Appeal reversing a judgment of Mr. Justice Kay, who refused a registration of W. G. Dunn & Co.'s trade-mark, "Dunn's fruit salt baking-powder." Mr. Eno opposed the application to register on the ground that the term "fruit salt" was a phrase of his own invention. Counsel were heard in the House of Lords in March last, and the proceedings were fully reported in *THE CHEMIST AND DRUGGIST* of March 15 and 22. On Thursday

THE LORD CHANCELLOR WAS IN THE MINORITY.

He said he was unable to concur in the view entertained by the majority of their lordships that the judgment of the Court of Appeal was wrong. He thought the court put the right construction upon the 73rd section of the statute, which was the one upon which they were all agreed the question must turn. Although, he said, an applicant has no absolute right to the registration of a trade-mark, the meaning and intent of the statute is that, unless for reasons contemplated by the statute, the trade-mark ought to be registered. Confining himself to the words "fruit salt" alone, and omitting to consider the words of the statute "or otherwise" and "scandalous design," he maintained that the trade-mark itself was free from all objection. He maintained further that Dunn's trade-mark did not so nearly resemble Eno's as to be calculated to deceive a purchaser. A cook with a dish of baked confectionery, with Mr. Dunn's name very prominently exhibited as the maker of a baking-powder, bore no resemblance, even the slightest, to Mr. Eno's fruit salt, or fruit saline, or fruit powder, surrounded by grape leaves and grapes. The dissimilarity of the two trade-marks could not, moreover, be properly shown by a verbal description. Mr. Eno was further met by the objection that the same goods form essential words in the section, and a baking-powder is not a powder for an effervescing drink, nor for a medicine. While up to the time that Mr. Dunn came on the scene the words "fruit salt" only meant the "fruit salt, fruit saline, or fruit powder" which Mr. Eno sold, it does not follow that two ordinary English words, though new in their combination, become the property of Mr. Eno; for as long as the combination of words was only applied to Mr. Eno's "fruit salt," the phrase would naturally mean Eno's fruit salt. But if it were applied to a baking-powder he could not believe that anyone would either suppose he was buying an effervescing drink, or that Eno's fruit salt formed an ingredient in it. This was the point on which he differed from some of their lordships.

He could not conceive the possibility of an ordinary person supposing that the two things were the same. The chemist, and not the ordinary person, only knew that bitartrate of potassa was the basis of both, and he could not see how the popular mind should take a baking-powder obtained from fruit as the same salt as that which furnishes its medicinal qualities to Mr. Eno's effervescing drink. It was admitted that Mr. Eno had no right to the exclusive use of the words, nor any patent right in the thing, and he did not think it right to refuse a trade-mark so totally unlike Mr. Eno's. He thought the statute clearly meant that if no such objections as it points at can be made to the registration the Comptroller ought to register, and as they were now in the position of the Comptroller they ought to register, and affirm the judgment of the Court of Appeal.

LORD WATSON TOOK THE OPPOSITE VIEW.

He said the appeal did not raise any serious question in regard to the construction of the "Patents, Designs, and Trade Marks Act, 1883," but depended upon the determination of a mere question of fact. The statute nowhere conferred an absolute right to register a trade mark. The Comptroller, by section 62, might refuse to register, his refusal being subject to an appeal to the Board of Trade, who might decide whether registration was to be permitted, or refer the matter

to the court for its determination. Section 72 (2) prohibited the registration of a trade-mark so nearly resembling a trade-mark already on the register, with respect to the same description of goods, as to be calculated to deceive. Section 73 also enacted that "It shall not be lawful to register, as part of or in combination with a trade mark, any words the exclusive use of which would, by reason of their being calculated to deceive or otherwise, be deemed disentitled to protection in a court of justice, or any scandalous design." Under those clauses the applicant had to satisfy the Comptroller, or the court, that the trade-mark which he proposed to register did not come within their scope. In an action for infringement the onus of showing that his trade-mark was calculated to mislead rests, not on applicant, but upon the party alleging infringement; but in this case he must justify the registration of his trade-mark by showing that it is not calculated to deceive.

If the use of the words "fruit salt" in the trade-mark would be calculated to deceive the public, such use was expressly forbidden by clause 73. Whether it would or would not have a misleading effect was the only substantial question arising for decision.

The evidence established conclusively that although the words "fruit" and "salt" were in common use, and had in combination no technical or scientific meaning, and, before the respondent entered the field, were only applied, in popular language, to the article manufactured and sold by the appellant under the name of Eno's Fruit Salt. That circumstance did not give the appellant a right of property in the words "fruit salt," or entitle him to use them, by themselves, in a registered trade-mark; but it was a material circumstance in considering whether the use which the respondent proposed to make of them in his trade-mark would be calculated to mislead. The proposed use of the term "fruit salt" by the respondent might, in many instances, have the effect of deceiving the public. It was said that the respondent's trade-mark was for a baking-powder, whereas the appellant's mark was for a powder to be used in producing an effervescing drink; and that there could be no risk of any member of the public confounding the two things. But he thought there would be a supposed connection between the two articles in the minds of many persons, who would naturally assume that the baking-powder had been manufactured with the appellant's "fruit salt," and purchase it in that belief; so that a batch of badly-made baking-powder might seriously injure the credit of the effervescing powder. The uncandid statements of the respondent with respect to his selection of the words, he thought, had been adopted with the deliberate purpose of obtaining pecuniary advantage from the wide reputation of the appellant's manufacture, and the probability of purchasers connecting it with his own baking-powder. It was argued that to give effect to those considerations would be equivalent to allowing the appellant to appropriate, as his own property, two words in common use. The argument appeared to him to underrate the resources of the English language, which were quite sufficient to enable any one to use these words in a trade-mark in such a manner as to prevent any possibility of their being connected with the appellant's "fruit salt." For these reasons he was of opinion that the judgment of the Court of Appeal ought to be reversed, and the order of Mr. Justice Kay restored.

LORD HERSCHELL COINCIDED WITH THIS OPINION.

After briefly reviewing the history of the case, he said that at the bar the only point insisted on was that Dunn's trade-mark ought not to be registered because it was calculated to deceive. To appreciate the point he contended that it was necessary to bear in mind the fact that Mr. Eno had formed the term "fruit salt." It was not used in literature before, was solely applied to the preparation advertised by him, and had come to be well known by the public in that connection. It was a fact come to be well known by the public and by those engaged in trade. It had been stated that the preparation which Mr. Eno sold contained some ingredients derived from fruit. This might well be so in the case of a person with some chemical knowledge; but he did not think that the same idea would be conveyed to the minds of the public generally; and he concluded that the idea suggested by the words to those engaged in commerce,

and to the public at large, would be Mr. Eno's powder, and that alone.

Assuming this to be so, this language might induce the public to believe that Eno's fruit-salt powder was an ingredient of the baking-powder, or employed in its preparation, or that the appellant was connected with the manufacture of the baking-powder, so the proposed trade-mark would be open to objection. But it was said that there would be no danger of any such notion being acquired by the public; that an aperient medicine and a baking-powder are such essentially different things that no one would imagine that the one could enter into the composition of the other was scarcely a fair statement of the case. To that he added that the appellant had no exclusive property in the words "fruit salt," and if it were proposed so to employ them that no reasonable person could suppose that they had reference to the appellant's preparation, such a use would be perfectly unobjectionable. For example, he could not conceive anyone imagining that a "fruit salt umbrella" was in any way connected with the article manufactured by Mr. Eno. And numberless similar illustrations might be given. But he was unable to arrive at the conclusion that "fruit salt" and baking-powder were of so essentially different a character. Two persons before this litigation was contemplated had used Eno's Fruit Salt with success as baking-powder; and he did not think the importance of this evidence was fully appreciated in the court below. It was true Mr. Eno had never advertised his preparation as a baking powder, and that his powder and Mr. Dunn's were not likely to be sold the one for the other. But seeing that "fruit salt" would mean, in the eyes of the public, Mr. Eno's powder, and that it had occurred to people to use it for the purpose of baking, it did seem highly probable that the words "fruit salt baking powder" would convey widely the idea that Mr. Eno's powder was one of its principal ingredients. For that reason, Mr. Dunn's use of the words "fruit salt" would be calculated to deceive. But he would not go so far as that. He was not satisfied that there would be no reasonable danger of the public being so deceived. Sections 72 and 73 prohibit the registration of a trade mark in certain specified cases: but the Comptroller is not compelled to register; he is allowed discretion, and his lordship thought it a reasonable exercise of it to refuse registration when it was not clear that deception might not result from it. He did not think their lordships had now to determine whether Mr. Eno could in any, and, if so, in what, cases restrain the use of the words "fruit salt," his opinion being that Mr. Eno had no private property in them. The sole point for decision was whether the Comptroller ought to be directed to proceed with the registration of a particular trade mark of which they form an element, and his lordship thought he ought not, and that the judgment should be reversed.

LORD MACNAGHTEN TURNS THE SCALE.

If it had not been for the difference of opinion to which this case had given rise he should have thought the question before their lordships tolerably free from difficulty. Ever since Courts of Equity had interfered to protect traders in the exclusive use of marks and words, for the purpose of distinguishing their goods, it had been an established principle that such protection was not to be extended "to persons whose case is not founded in truth." Unfortunately, a trader not unfrequently endeavoured to attract custom by representing that his goods were different in origin, composition, or character from what they really were. The public were constantly tempted to buy one thing when they thought they were buying another. It was not "the province of the court to protect speculations of this kind." Between rival traders the application of the principle was necessarily a matter of difficulty. But as between the innocent public and a trader there was no room for hesitation or doubt. The statute declared that it was unlawful to register as part of a trade-mark any words, the exclusive use of which would, by reason of their being calculated to deceive, be deemed disentitled to protection in a court of justice. It seemed to him that in registering trade-marks the Comptroller, to whom in the first instance was committed the "discretionary power" of registering a trade-mark, ought to reject words which involved a misleading allusion or a suggestion of that which was not strictly true, as well as words which contained a gross and palpable false-

hood. The evidence showed that the expression "Fruit Salt" meant Mr. Eno's preparation, nothing else, and that Mr. Eno's preparation was well known and very popular. Mr. Dunn adopted the expression "Fruit Salt," and gave it a prominent position among the words he sought to register. Those words were calculated to deceive and create a confusion in the minds of those persons to whom Mr. Dunn's advertisements were addressed, and to lead such persons to suppose that his baking powder was in some way or other connected with Mr. Eno's preparation. Mr. Eno could not have any exclusive property in the expression "Fruit Salt." The words of which it was composed were common English words. Anybody might use them in any manner and in any connection he pleased, provided he took care that the use to which they were applied was not calculated to deceive. The question was one between Mr. Dunn and the public, not between Mr. Eno and Mr. Dunn. It was immaterial whether the proposed registration was or was not likely to injure Mr. Eno in his trade. Equally immaterial was the fact that for a considerable time Mr. Eno had on the register as his trade-mark, the words "Fruit Salt." Mr. Eno might have gained some advantage to which he was not properly entitled; but that was hardly a reason for permitting Mr. Dunn to practise a deception upon the public. He was of opinion that the decree under appeal ought to be reversed, and that the decision of Mr. Justice Kay ought to be restored.

LORD MORRIS SIDED WITH THE CHANCELLOR.

He recited the chief facts in the case, incidentally pointing out that there is no such phrase as "fruit salt" in "Brande's Manual of Chemistry," although Mr. Dunn had said that he had adopted it from that, whereas he had obviously adopted the phrase from the appellant's use of it. But he thought that Mr. Eno's contention that buyers of Dunn's baking powder would believe from the use of the words "fruit salt" that it was an adaptation of Eno's so-called invention was untenable. It appeared to be founded on the assumption that "fruit salt" was a fancy phrase invented by Eno, who stated that none of the ingredients of his fruit salt were salts found in fruit. His lordship could arrive at no other conclusion than that the use of the two words "fruit salt" implied that there was a salt extracted from fruit in the preparation. Eno's contention was founded on a supposed invention of an arbitrary term or fancy phrase, "fruit salt"; whereas it appeared to his lordship to be the description of an ingredient of his powder, whether truly or untruly stated to be so. His lordship then stated how the case stood, and, referring to Eno's extraordinary contention, that his powder might be used as a baking powder, he said this wanted a foundation in fact. It was true an archdeacon at Pietermaritzburg, when unable to obtain baking powder, stated he used Eno's Fruit Salt for baking in 1887 and 1880, and apprised Eno of the fact; and Eno's accountant stated that his wife had used it for four years as a baking powder, and two other witnesses deposed to the same, on experiments made after this action had commenced; the same evidence could be given of the possible use of a sedlitz powder. Could it be gravely asserted that such a use of the aperient drinking powder could ever be an ordinary one, or that it was ever contemplated by Eno that he would adopt such a trade of his powder? In his lordship's opinion there was nothing in the use by Dunn of the words "Fruit Salt" to deceive purchasers; and in deciding in favour of Eno they should practically give him the exclusive right to the use of the words "Fruit Salt," though admittedly incapable of being registered by him as a trade mark, to the exclusive use of which words he was not entitled. He therefore held that the judgment of the Court of Appeal should be affirmed.

The appeal was, however, sustained, and the respondent was ordered to pay the costs of the appellant.

EXTRAORDINARY CONDUCT OF A CHEMIST.

ON Thursday, June 19, in the Chancery Division of the High Court of Justice, Mr. Justice Kay had before him, in the action of Laler v. Sturgess, an application on behalf of the plaintiff for leave to serve short notice of motion for the following day, to restrain the defendant from acting as the plaintiff's manager and servant of a chemist and druggist's

business at Erith, in Kent. The circumstances, counsel stated, were rather peculiar. The defendant was manager and servant to the plaintiff, but recently had been paid his salary and dismissed, the plaintiff having received an eligible offer for the business. Defendant, however, refused to leave, and threatened every one who went to the place with a hatchet, in consequence of which proceedings had been taken.

Mr. Justice Kay said he never before heard of a mandatory injunction being asked for to turn out a trespasser. If the defendant were a trespasser, he could be turned out by the plaintiff or the police.

Counsel pointed out that there was considerable danger in doing this. (Laughter.)

Mr. Justice Kay said he had never heard of such an application, and he should refuse to give leave to serve such short notice, but would give leave to serve notice of motion for Friday, June 27.

This offer was accepted.

Mr. Bramwell Davis appeared in support of the application.

"FAIRMAN v. M'DOUGALL BROTHERS."

THE solicitors for Messrs. William Cooper and Nephews, the manufacturers of the sheep dipping-powder for slander of which this action was brought, have asked us to state that Messrs. Cooper were in no way parties to or interested in this action, which was brought by Mr. Fairman entirely upon his own account. They also remind us (as mentioned in our report last week) that Messrs. Cooper themselves brought an action against Messrs. M'Dougall Brothers in respect of the article complained of, and that at the trial on November 7, 1887, Messrs. M'Dougall, while admitting that the article complained of referred to Messrs. Cooper's powder, withdrew their plea of justification, expressed their regret that they had made the statements complained of; consented to a judgment, and paid Messrs. Cooper a substantial sum against costs and expenses.

BANKRUPTCY REPORTS

Re Thomas Williams and John Henry Thomas, carrying on business under the style of Grindley & Son, 6 Northgate Street, Chester, Wholesale and Retail Chemists and Druggists.

THE first meeting of creditors was held at the office of the Official Receiver, Chester, on the 13th. The statement of affairs showed liabilities to secured creditors, 2,299*l.* 19*s.* 5*d.*; other liabilities, as per list, 86*l.* 10*s.*; total, 2,386*l.* 9*s.* 5*d.*; against which were assets: cash in bank, 67*l.* 13*s.* 8*d.*; cash in hand, 7*l.* 19*s.* 7*d.*; stock-in-trade, estimated cost, 809*l.* 14*s.* 3*d.*, to produce 450*l.*; machinery, trade-fittings, fixtures, utensils, &c., cost 500*l.*, to produce 50*l.*; share in C. M. W. Co., 1*l.*; book-debts, good, 314*l.*; doubtful, 318*l.* 1*s.* 10*d.*; bad, 182*l.* 4*s.* 2*d.*; total, 500*l.* 6*s.*, estimated to produce 160*l.*; total assets, 1,055*l.* 13*s.* 3*d.*; disclosing a deficiency of 1,330*l.* 16*s.* 2*d.*. The debtor Thomas Williams states the causes of failure to be "bad trade, shortness of capital, purchasing the business at too high a price." The debtor J. H. Thomas states them to be "purchasing the business at too high a price and having to meet the liabilities of the old firm."

The Official Receiver reports that Thomas Williams commenced business in 1881 without capital as a chemist. He went into partnership, in 1881, with the late Mr. Grindley, taking one-fifth of the profits for five years and two-thirds afterwards, but before the debtor reaped any benefit under the two-thirds division Mr. Grindley died. No valuation was made, the assets at that date were 3,663*l.* 4*s.* 9*d.* and liabilities 4,709*l.* 6*s.* 4*d.*. In September, 1888, J. H. Thomas joined him in partnership, bringing in the whole of his capital of 500*l.* and taking over the half-share of the assets and liabilities of the business at that time. The terms of the partnership were an equal division of profits. Mr. Thomas appears to have had the books investigated before entering into partnership, but the book-debts being taken as all good, and the fixtures, &c., as worth the full amount of

their original cost many years ago, there can be little doubt he was not apprised of the true position of the business, which was evidently insolvent. The debtors appear to have kept proper books of account.

On March 31 last the debtors offered their creditors 15*s.* in the pound, to be paid by J. H. Thomas, Thomas Williams agreeing to go out of the business. After a further investigation of the accounts by J. H. Thomas, he discovered that the assets would be insufficient to enable him to meet the composition accepted by the private meeting of creditors. The value of stock, fixtures, fittings, and book-debts had been placed much too high.

The Deputy Official Receiver, Mr. Hugh Roberts, stated that the balance-sheet, at the time the business was given up by Mr. Grindley, and as submitted by the debtors, showed an adverse balance at that time amounting to 1,046*l.* 1*s.* 7*d.*; but he found that the liability column had been added up wrongly, giving a total of 10*l.* 10*s.* more than was really the case. The deficiency at that time was consequently not so much as had been represented. The book-debts were now nearly 500*l.* less than was originally stated, accounted for largely by the fact that many of the firm's debtors had contra accounts by which they settled. The debtors made no offer, and were declared bankrupt. On the motion of Mr. Thompson, Mr. E. B. Roose, chartered accountant, Liverpool, was elected trustee, with the following committee of inspection:—Messrs. J. Thomson, J. D. Bowers, and Thos. Salter (Liverpool). It was decided that the same gentlemen should officiate with regard to the separate estates.

The principal creditors are:—

	£	s.	d.
Vauxhall Methylating Co., Liverpool	20 12 9
Summers & Co.	11 17 1
Ramsden, J., Chester	17 4 0
Gibson Bros., Sheffield	66 12 7
Pegg & Co., Derby	24 3 4
Gates, O. S., Chester	35 9 9
Walker, Parker & Co., Limited	32 0 0
Bower Bros., Chemists	20 9 5
Smith & Batson, Liverpool	17 14 0
Matthews & Co.	16 9 1
Thomas, Mrs. P., Chester	97 14 1
Ayrton & Saunders, Liverpool	20 11 7
Anglo-American Oil Company	25 5 5
Schweppe, J., & Co.	44 14 6
Powell, J. T., Chester	10 10 0
Mead, King & Robinson, Liverpool	20 18 11
Smith & Co., London	15 3 7
Greenall & Co., Warrington	55 14 0
Southall Bros. & Barclay, Birmingham	14 16 2
Horne & Sons, Aldgate, E.	142 9 11
Thompson, J., Liverpool	324 3 3
Beaufoy & Co., South Lambeth	50 6 11
Nobels and Hoare, Cornwall Road	165 8 10
Taylor & Co., Finsbury, E.C.	62 15 3
Blundell, Spence & Co., Liverpool	23 3 3
Gamble & Crossfield, Kingston-on-Hull	11 8 4
Edwards & Co., Liverpool	50 8 1
Rowlands & Co.	11 7 8

Separate estate of Thomas Williams:—

Jones, Miss W. .. .. .	..	..	244 16 1
Evans, Miss .. .. .	..	..	19 7 0
Bateman, J. .. .. .	..	..	109 7 6
Walker & Knight .. .. .	..	..	27 12 0

Re RICHARD TENCH, formerly Chemist and Druggist.

THIS debtor who was at one time a chemist and druggist in Walbrook, London, and was afterwards occupied as a company promoter, his present address being given as of 18 Clifton Hill, Brighton, applied to Judge Martineau, at the Brighton County Court, for his discharge. According to the Official Receiver's report the debts were 1,522*l.* and the assets *nil*, and no dividend was expected. When the debtor started in partnership with another in company promoting business, he had no previous experience, and neither had any capital. The debtor had failed to keep proper books, had contracted debts without any reasonable probability of being able to pay, and he had been guilty of rash and hazardous speculation. In reply to his Honour the

debtor said he now proposed to start in his original business as a commission agent, and by this he would incur no liability. His Honour said all three of the offences were proved, and suspended the order for discharge for eighteen months.

Gazette.

PARTNERSHIP DISSOLVED.

Dunn & Graves, Crich, Derbyshire, surgeons.

THE BANKRUPTCY ACT, 1883.

Receiving Orders, Public Examinations, Adjudications, Dividends, &c.

Dalton, M. G., Kingston-upon-Hull, wholesale drysalter.—Ex. July 14, at 2.

De Mesans, Rodolph, Great Portland Street, W., agent for the sale of apparatus of the cure of consumption.—R. O.

Steel, Arthur Robert, Sandal Magna, Yorks, surgeon. R. O.—Ex. July 3, at 11.—Adj.

EXTRACTS FROM THE REGISTER OF DEEDS OF ARRANGEMENT.

The following deed of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Baron, Jane, and Baron, Job Hold, both of the Old Curiosity Shop, 13 Sheffield Road, Barnsley, tobacconists, wholesale druggists, seedsmen, jewellers, clothes and general dealers. Trustee: James Harrison, George Yard, Barnsley, wholesale grocer, with a committee of inspection. Date, June 9; filed, June 10 unsecured liabilities, 1,590l. 16s. 9d.; estimated net assets, 355l.; creditors fully secured, 200l.

Fleming, William, 21 Bank Street, Padiham, Lancaster, doctor of medicine. Trustee: Frederick A. Hargreaves, 7 Grimshaw Street, Burnley, C.A., with a committee of inspection. Date, June 10; filed, June 17; unsecured liabilities, 343l. 9s. 10d.; estimated net assets, 250l.

Trade Notes.

A FIRST-CLASS award has been gained at the Dunedin Exhibition by Messrs. Burroughs, Wellcome & Co. for the Kepler malt extract.

THE PROJECTED FORMATION of the German Ultramarine Works into a combination has only been partially achieved, and several works, we understand, have remained outside the union. The style of the new firm is the "United Ultramarine Works, formerly Leverkus, Zeltner and others," and the headquarters of the concern, which has a share-capital of 2,500,000 marks, are at Nuremberg.

MESSRS. PARKE, DAVIS & Co., of Detroit, are, we hear, making a bid to become the sole manufacturers of pharmaceutical preparations in the United States. Recently they have bought out big concerns in Chicago and San Francisco, and are pushing ahead in a very determined manner. Australia they have already tapped. Standardised preparations are their leading line, and they get the credit of being the cause of the recent agitation for a more general recognition of the standard principle in the United States Pharmacopœia. The firm are also constructing a laboratory and warehouse at Walkerville, Ont., which are intended to give them improved facilities for pushing trade in Canada.

SEQUAH (LIMITED).—An announcement appears among our advertisements this week inviting applications for shares in the new company formed to carry on the extensive business so well known in most towns of the United Kingdom under the style of Sequah. The original Sequah, Mr. W. H. Hartley, who was "luncheoned" at the Victoria Hotel a few days ago, some years since associated with himself several other gentlemen, who formed a syndicate to carry on the enterprise under the style of "Sequah (Limited)." This syndicate now proposes to sell the concern to a new public company with the same title. The total amount to be paid for the business is 250,000l., and the capital asked for is 300,000l. (100,000l. in cumulative 10-per-cent. preference shares, and 200,000l. in ordinary shares). The vendors are to take one-third of each of these issues in part payment of the purchase-money. The promoters are quite justified in claiming that they have established their business in an entirely novel manner. For the year ending May 31, they show sales of 1,458,702 bottles, with a net profit of 44,584l. It is also shown that the sales and profits have been steadily growing all through the year. Suggestions of developing the peculiar "Sequah" system by the introduction of other specialities and of extending it to the Continent are made in the prospectus, and we hear that a dozen chariots will shortly make a descent on the metropolitan suburbs, each accompanied by its orator and its orchestra.

MARRIAGES.

DEWING—BAILEY.—On April 10, at the parish church, Nantwich, James Edward Dewing, chemist, Bridlington, to Emma Gertrude, second daughter of the late Mr. M. Bailey, of Southport.

GRAY—ELDER.—At Edinburgh, on June 4, by the Rev. John Robertson, M'Crie-Roxburgh Free Church, John J. Gray, chemist, Colts, Aberdeenshire, to Aggie Hosie, only daughter of the late James Elder, Innerleithen.

WEBSTER—ALLEN.—On Thursday, June 12, at St. Botolph's, Colchester, Mr. A. F. Webster, second son of Mr. Webster, chemist, Head Street, Colchester, to Miss Amy Allen, youngest daughter of Mr. George Allen, of Colchester.

DEATHS.

FAIRBURN.—At Northallerton, on May 10, Mr. Joseph Fairburn, chemist and druggist, aged 45, suddenly. Mr. Fairburn took a lively interest in local affairs, and was a generous supporter of charitable objects in the town.

MACKAY.—At 12 Lonsdale Terrace, Edinburgh, on the 9th inst., Mr. James Mackay, aged 70 years. The deceased gentleman was a brother of the late Mr. John Mackay, and a member of the firm of Messrs. John Mackay & Co., wholesale chemists. He represented the firm for over thirty years, and was well known on the road as a genial companion and genuine friend. His relationships with retail chemists throughout Scotland were of the most cordial character.

REID.—At Montrose, on June 11, Mr. John Reid, pharmaceutical chemist, aged 69. The deceased gentleman never took an active part in Scotch pharmaceutical affairs, at least within recent years, but for a long time he was Provost of Montrose, and held other public offices in that town. For these reasons mainly he was well known to the trade in Scotland and was a highly respected man. Mr. Reid was a native of Balthayock, a small village in the vicinity of Perth, and after a sound education was apprenticed to a druggist in the fair city, his brother Neil, who died a few years ago, following the same calling. Eventually the future provost found himself one of Messrs. Duncan, Flockhart & Co.'s staff in their North Bridge shop, most of his fellow-assistants being men who, since that time, have taken a prominent position in pharmacy. After a few years' experience Mr. Reid went to Montrose to start business, and succeeded in establishing an excellent connection. He was a very amiable man, and was highly respected in Montrose, the town council of which resolved to attend his funeral as a body. Mr. Reid married, about thirty-four years ago, a [daughter of the late Dr. Roger, Stirling, and is survived by Mrs. Reid, three sons, and three daughters. Mr. Neil Reid, the eldest son, is a chemist and druggist.

Scientific Notes:

*On Chemistry, Pharmacy, Botany, Materia Medica &c
Original, Selected, and Translated.*

TEST FOR RESORCINOL.

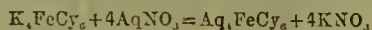
ACCORDING to Bodde an aqueous or alcoholic solution of resorcinol gives a violet coloration on addition of a drop of sodium hypochlorite, which soon turns yellow, and which, on warming, or on further addition of hypochlorite, becomes dark yellow, red, or dark brown. One part of resorcinol in 10,000 parts of water can be detected by the violet coloration. Carboic acid, salicylic acid, benzoic acid, and allied bodies do not give the violet coloration.

TO DETECT ALKANET.

IN testing a quack medicine which contained arnica and was supposed to be coloured with alkanet, Bujard and Klinger (*Zeit. aug. Chem.*) found that the most suitable way for detecting the latter was to render the preparation alkaline with ammonia and shake out with ether. The latter became of a pale violet colour, and after evaporation the residue was dissolved in dilute alcohol, but the violet fluid gave, however, a totally different spectrum from orseille, which in other circumstances would have been indicated. Dilute acetic acid changed the colour to red, and soda made it blue. It would thus appear that in its reaction with ammonia and ether alkanet resembles orseille, whilst the pigments of logwood, grape, and blackberries do not colour ether.

VOLUMETRIC ESTIMATION OF SILVER.

D. VITALI proposes a process for the volumetric estimation of silver which he bases upon the reaction which takes place when potassium ferrocyanide and a soluble silver salt are brought together, and which is represented by the following equation:—



This reaction proceeds in presence even of ferrous sulphate, so that Prussian blue is not formed until the whole of the silver in a solution has been precipitated as a ferrocyanide. It follows, therefore, that sulphate of iron, or any other ferrous salt, can be taken as an indicator where a standard solution of potassium ferrocyanide is employed for precipitating silver. The decinormal ferrocyanide solution is made by dissolving 9.2 grammes of the ferrocyanide, dried at 100° to 105° C., in water, and making up to a litre at 15° C. One drop of a dilute solution of sulphate of iron added to 10 c.c. of decinormal solution of silver nitrate gives no blue colour until after 10 c.c. of the decinormal ferrocyanide has been added, and the mixture well shaken. Sulphate of copper also serves well as an indicator.

ASSAY OF WHITE HELLEBORE.

FOR determining the amount of alkaloid in white hellebore Kremel has proposed (*Arch. der Phar.*) the following method:—Mix 5 grammes of the powdered root with about 50 c.c. of a mixture of equal parts of chloroform and absolute alcohol. Then agitate this mixture with several portions of water acidulated with hydrochloric acid. Mix the aqueous washings, filter if necessary, add solution of potash in slight excess, and again agitate with chloroform, using a few c.c.s three times. The chloroform should then be evaporated and the residue dried at 100° C. A good root yields from 1.3 to 1.5 per cent. of the mixed alkaloids, jervine and veratroidine. The residue should be almost white and in microscopic crystals.

KRAMERIA ARGENTEA AND KRAMERIA TRIANDRA.

THE relative value of the roots of these plants has been reported upon by Mr. R. G. Dunwoody to the Philadelphia College of Pharmacy. He states that the former root is largely sold in the States at present. He made complete analyses of both, which show that *K. triandra* root yields 23 per cent. of matter to absolute alcohol, while the other yields only 12.6 per cent.; and as these figures include a large portion of the tannin, it is evident that the latter root is a little weaker in that element.

ASBESTOS IN THE LABORATORY.

ASBESTOS in its various forms is a very useful substance, and can be employed very handily in many ways at the lecture-table and in the laboratory, says Professor Markoe. Shredded or carded asbestos will serve as an excellent filtering material, used just the same as paper pulp. Asbestos twine for use in binding together parts of apparatus exposed to fire or strong acids. The writer often prevented a crack in the neck of a retort or flask from spreading by binding it with asbestos yarn or twine soaked in solution of sodium silicate, and then treated with a solution of calcium chloride, a perfectly insoluble cement being thus formed. Asbestos wool mixed with solution of silicate of sodium makes a fire-proof cement of great strength, also serves to mend cracks in stoneware; can be made insoluble by subsequent treatment with calcium chloride, silicate of calcium being formed. Asbestos paper and card can be obtained of all degrees of thickness, and can be well employed as substitutes for wire gauze and the sand-bath in small operations involving the heating of glass vessels. Asbestos paper and silicate of sodium is very useful for mending cracks in glass apparatus.

MORPHINE SALTS AND HYDROCYANIC ACID.

A PARAGRAPH has been going the rounds of the American medical journals to the effect that when morphine is prescribed in mixtures with cherry-laurel water there is a great danger from the result, the two substances being incompatible, owing to the morphine combining with the hydrocyanic acid to form an insoluble cyanide. This change is, however, prevented by the addition of a small proportion of hydrochloric acid. Referring to this, Professor J. M. Maisch, in a communication made to the Philadelphia College of Pharmacy, states that in a paper, published in the *American Journal of Pharmacy*, June, 1871, he pointed out that hydrocyanic acid does not precipitate neutral solutions of morphine. The same paper detailed some experiments made by him with neutral salts of morphine and alkali cyanides which were shown to precipitate the morphine so completely that the filtrate will yield no further precipitate with potassium-mercuric iodide. The crystalline precipitate he supposed to consist of morphine hydrocyanide, but Professor Flückiger subsequently showed that under the conditions mentioned the alkaloid morphine is precipitated, and that a morphine cyanide does not exist. The error in the above-mentioned paragraph can only be explained by the improper preparation of the cherry-laurel water used. If made by distillation from the leaves it cannot contain a cyanide, and the free hydrocyanic acid will not cause a precipitate. Very likely the water was prepared by means of magnesia, in which case it must have contained magnesium cyanide, which would precipitate morphine. In proof of this conclusion Mr. Beringer showed at the meeting a solution of morphine sulphate in imported cherry-laurel water, which had deposited a crystalline sediment. On testing the cherry-laurel water he had found it to contain magnesia, and to yield, in the usual manner, a decided precipitate of ammonio-phosphate of magnesium; the water sold as distilled cherry-laurel water appears to have been made from the volatile oil by triturating it with magnesia and water.

DELICATE TEST FOR IRON.

MR. S. F. HINSDALE reports to the *Pharmaceutical Record* that a solution of sulphite of soda with a little pyrogallol acid is an exceedingly delicate reagent for iron, giving a bright purple tint in very dilute solutions. The manner in which the test is applied is to add to the iron solution 4 drops of saturated solution of sodium sulphite and 2 drops of 1-per-cent. aqueous solution of pyrogallol acid. With distilled water a light tint shade is given, which, however, soon fades. This is due to the trace of free ammonia which distilled water usually contains. With iron the test is so delicate that it will detect the metal in 100 c.c. of water, in which a bright cambric needle has been immersed for an hour. With dilute solutions of copper salts a red colour is produced.

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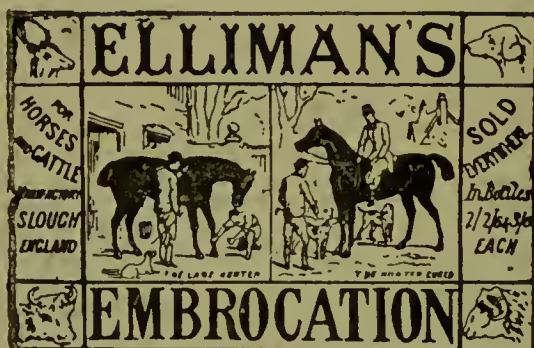
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EDITORIAL NOTES.

CHEMISTS AND THE APOTHE-
CARIES ACT.

WE have had to report lately several prosecutions of
chemists and druggists by the Society of Apothecaries,
under their well-known Act of 1815. The prosecution at
Alfreton which we reported last week indicated an extra-
ordinary assumption of apothecarial functions on the part
of a chemist and druggist. The defendant was evidently
acting in all respects as a general medical practitioner: the
evidence showed that he was medical officer to several clubs
and regarded by them as their "doctor." He was, it
appears, qualified to practise in midwifery, but this qualifica-
tion was not sufficient to justify his medical appointment if
the clubs were under the Friendly Societies Act, nor did it
give him more than a fraction of the general rights which
he had assumed. It must be acknowledged that since the
time when two or three medical defence associations set
themselves to put down prescribing by chemists by means of
the Apothecaries Act, and when the Chemists and Druggists'
Association met these pretensions with a determined
resistance, the apothecaries have exercised their powers

sparingly. Twelve years ago a real danger existed; a forward party in the Apothecaries' Society would have interfered to a serious extent with the business of the chemists and druggists, and it was that danger which, more than anything else, ensured the success of the Chemists and Druggists' Association. After some skirmishing and several pitched battles, the Apothecaries' Society were legally victorious. The law was laid down by several of the most eminent living judges entirely in their favour. At the outset, Baron Bramwell declared that the chemist who should sell a customer a draught for a headache was infringing the Apothecaries Act, and was liable to a penalty of 20*l.*; and this extreme statement of the law was endorsed in other language by Baron Pollock, Mr. Justice Field, and others. In all the cases the ruling of Mr. Justice Cresswell in the Lotinga case was adopted as the basis of interpretation. This was to the effect that an "apothecary is a person who professes to judge an internal disease by its symptoms, and applies himself to cure that disease by medicines." But the apothecaries understood too well the merely technical character of the victory they had gained to press it too far, and it is to the credit of their prudence, as well as a result of the spirited attitude adopted for the defence, that chemists have been able to carry on their business since with every reasonable latitude.

It would be perfectly useless now to question the construction of the law which has been established by so many cases and by such high authority, but it is certain that the modern interpretation of the Apothecaries Act would astonish above all those who promoted and those who passed it. Undoubtedly the first object of the apothecaries who associated themselves to get a penal Act was to crush the competition of the then rapidly improving race of chemists and druggists, but they themselves had to acknowledge that their efforts in this direction were utterly defeated. In the introductory essay to the Transactions of the Associated Apothecaries published after the passing of the Act in 1815, and written by the men who had been chiefly instrumental in obtaining that Act, bitter complaints of its unsatisfactory character appear. Comparing the Act with the Bill first projected, the authors say: "Shorn, indeed, is the latter of its fair proportions. The practice of medicine is, doubtless, placed under certain, but very inadequate, restrictions; but, whilst that of surgery and midwifery is still open to every unprincipled pretender, the druggists are neither prevented from making up physicians' prescriptions, nor even from practising medicine."

In Gray's Supplement to the Pharmacopœia it is stated that the Act was restricted to those who practise as apothecaries, with an express declaration that it did not extend to chemists and druggists, showing that in the view of the writer the Act gave no such power as Baron Bramwell attributed to it. The story of the contest between the druggists and the apothecaries is effectively and concisely told in Mr. Jacob Bell's historical sketch of "The Progress of Pharmacy." Abundant evidence is there given of the clear conception entertained by both parties of the real point at issue. The apothecaries, in advocating such a measure, and referring to their rivals, ironically remarked that "pharmacy alone comprises too small a field for these men of letters and ambition—they prescribe whenever applied to, though totally ignorant of medical science." The druggists, on the other hand, made it a point of their opposition that "if the poor were obliged, on every slight ailment, to employ a professional man, who can legally charge for attendance and medicine, they must encounter the greatest pecuniary inconvenience or the distressing consequences of protracted sickness." Lastly, when the apothecaries

agreed, for the sake of passing their Bill in any form, to buy off the opposition of the druggists, they assured them that they would withdraw any clause which excited their jealousy; and it was then that they offered to insert into the Act the exemption clause, which there appears as section 28. It is a curious and instructive fact that if the druggists had accepted the clause as drafted by the apothecaries themselves, there would have been less power to interfere with them than the society now possesses. The clause proposed by the apothecaries was as follows:—

Provided always, and be it further enacted, that nothing in this Act contained shall extend, or be construed to extend, to prejudice, or in any way to affect, the trade and business of a chemist and druggist; but all persons using or exercising the said trade, or who shall or may hereafter use or exercise the same, shall and may use, exercise, and carry on the same trade in such manner and as fully and amply to all intents and purposes as they might have done in case this Act had not been made.

This was amended and amplified by the druggists into the following:—

Provided always, and be it further enacted, that nothing in this Act contained shall extend, or be construed to extend, to prejudice, or in any way to affect, the trade or business of a chemist and druggist, in the buying, preparing, compounding, dispensing, and vending drugs and medicinal compounds, wholesale and retail; but all persons using or exercising the said trade or business, or who shall or may hereafter use or exercise the same, shall and may use, exercise, and carry on the same trade or business, in such manner and as fully and amply to all intents and purposes as the same trade or business was used, exercised, or carried on by chemists and druggists before the passing of this Act.

Anyone who reads the judgments under the Apothecaries Act referring to chemists and druggists will find that much stress has been laid on the words which define the trade or business of a chemist and druggist, and the alteration of the final words of the clause as proposed by the apothecaries, which would have allowed chemists to carry on their business as if "this Act had not been made," was undoubtedly a serious tactical error.

OUR EXPORTS OF DRUGS AND MEDICINES.

THE Annual Statement of the trade of the United Kingdom, which has just been published, enables us to estimate, with a fair approach to accuracy, the importance of the foreign trade of this country as a whole, and the directions in which, either with particular nations or in certain branches of business, our trade has been declining or advancing during the last five years. The book contains 397 folio pages filled with figures, and it is not the easiest thing imaginable to find one's way through the maze of its contents. We have, however, succeeded in reducing within a comparatively small compass those figures which are specially related to our trade in drugs, chemicals and pharmaceutical preparations. It should be said, in explanation of the extract which we subjoin, that it relates simply to such goods as form the bulk of the business of our export and import houses of drugs and chemicals. Alkali, soap, perfumery, and similar articles, for instance, have been left out of account altogether, nor have we included in the figures such goods as acacia and varnish gums, fixed oils, shellac, quicksilver and others of that kind, although they form a considerable part of the business of drug-houses trading with the continent and America. Had we included these, the figures would have been very much more imposing than they are at present. Our abstract takes into account only those articles which are included in the Board of Trade returns as "drugs, medicines and medicinal preparations" and "chemical products and preparations," by which are meant such goods as iodine, bismuth, borax, cream of tartar, &c.; but not the heavy chemicals, which

belong to the domain of the drysalter rather than the druggist.

Our table does not lay claim to absolute accuracy. In the first place, the values are entered by the Customs as they are declared on the bill of lading of the shippers; and everyone with any experience of practical business is aware that such declarations often, if not habitually, deviate from the actual amount of the invoice. Sometimes the knowledge that heavy duties will be levied upon the goods at the port of arrival operates against a declaration of the full value, and sometimes there are causes which exercise a tendency in an opposite direction. Then, again, in a large number of cases, the "drugs and medicines" are included by the compilers of the statistical abstract under miscellaneous articles, and this applies specially to countries of comparatively minor importance. But, in spite of all these unavoidable drawbacks, the table which we publish gives a fair idea of our exports of drugs during the last five years. The figures are given in thousands of pounds:—

Exports in 1,000 <i>l.</i> to	1885	1883	1837	1888	1889
Germany (with Holland and Belgium)	979	1,005	980	956	1,036
France	354	407	510	551	627
Russia	92	79	85	86	86
Italy	93	109	145	134	187
Spain and Portugal ..	88	87	79	82	129
Other parts of Europe ..	97	101	83	82	81
Turkey and Levant ..	26	23	26	20	22
United States	952	730	879	890	867
Spanish America (including Brazil)	222	243	253	283	317
China and Japan	71	80	102	79	109
British India and Ceylon ..	230	220	256	266	267
Australasia	446	398	401	499	441
British North America ..	76	86	91	87	103
British West Indies ..	60	61	65	73	65
South Africa	78	67	101	131	170
Other Colonies	13	14	14	16	16
Total 1,000 <i>l.</i>	3,877	3,710	4,080	4,235	4,523

It will be seen from these figures that the total value of our exports of raw drugs and chemicals and of medicinal preparations last year was rather over 4,500,000*l.*, thus showing a steady expansion, which is all the more remarkable as prices have generally declined during the period under review; and we, therefore, had to export in 1889 a larger quantity of goods to reach even the same value as in 1885. The increase in our exports for the five years has been at the rate of nearly 17 per cent., and, if we may draw any inference from the Board of Trade returns for the present year, the growth is still continuing. Our principal customers remain Germany, the United States, and France, but the large increase shown by the trade with those countries is not altogether a clear gain to ourselves. They take comparatively few medicinal preparations from us, and the raw drugs, which form the bulk of our exports thither, not only represent a much smaller percentage of profit to ourselves than an equal amount of pharmaceutical preparations, but they prove that the manufacturing industries in these countries, with which we have in turn to compete in the less highly-civilised parts of the world, are growing at a rate somewhat uncomfortable to ourselves. Among our exports to Germany, &c., last year, for instance, cinchona alone accounts for about 155,000*l.* The total profit on this item to this country in brokerages, commissions, storage, wages, &c., amounts, we should think, to less than 8,000*l.* Roughly calculating, the quinine value of this bark represents about 200,000*l.* The profits to Germany on this amount—not only the small margin made by the quinine manufacturers, but also the moneys paid in wages, the profits of carriage of the

raw and manufactured product, &c.—are certainly larger than the share which we have drawn from the transaction; while, moreover, at least 150,000*l.* of German-made quinine has been thrown upon the markets of the world in competition with the output of our own manufacturers. The large increase of our exports to Italy last year is probably to some extent accounted for by the "tariff war" which was then in progress between that country and France, and which naturally resulted in an abnormal inflation of Italian trade with the chief competitors of the Republic. The growing adoption of protectionist views accounts for the diminution of our trade with Russia and several of the small European states. In the United States and Canada hostile tariffs even do not suffice to keep out British goods. On the other hand, the Australian colonies have apparently succeeded in raising some obstacles to the expansion of our trade with some of them. South Australia, Victoria, and New Zealand are busily engaged in protecting themselves, or, rather, a few of their manufacturers; but to New South Wales, which until recently has remained true to Free Trade, our exports have not declined. One of the most satisfactory features shown in our synopsis is the steady and remarkable growth of our exports to such markets of large future promise as China and Japan, South Africa, Spanish America, and India. While our drug exports, as a whole, have grown in five years at the rate of 17 per cent., the rate of progress with the countries enumerated above has been no less than 44 per cent. And it must further be borne in mind that the exports to these markets consist almost wholly of manufactured goods, on which our rate of profit is higher than that on raw drugs. The increase of our grip on these markets of the future augurs well for the power of our manufacturers to hold their own where they fight on equal terms. The extraordinary increase of our trade with South Africa deserves special mention as affording undeniable proof that the consumption of medicines increases with the general prosperity of a country.

THE GERMAN PHARMACOPŒIA.

THIRD EDITION.

THE German "Bundesrath" has decided that the new edition of the "Pharmacopœia Germanica," which has been worked out by the Permanent Pharmacopœia Commission, shall become authoritative on January 1, 1891. The Pharmacopœia now in force became legally effective on January 1, 1883, so that the new revision is completed after a lapse of eight years.

In November, 1887, the chairman of the Commission made a public announcement in which he invited all persons interested in the work of revising the Pharmacopœia to communicate any information or experience which might be useful, and in June, 1888, the division of the large amount of accumulated material among the members of the Commission was commenced. When, however, the work was actually grappled with, and its scope and extent more justly appreciated, it was found that a mere addendum would not be sufficient, and the preparation of a new Pharmacopœia was resolved upon.

There were 1,240 remedies recommended for inclusion in the Pharmacopœia, but the Commission sifted these down to only 91 worthy of serious consideration. A sub-committee of the Commission met for a week's session in June, and the whole Commission sat for a similar period in October, 1889. In the following month the Bundesrath decided that the Pharmacopœia should be in the national language, and it is expected that this innovation will be strictly adopted even to the

title; though whether the familiar term "Pharmacopœia" will ever be displaced by its German equivalent, "Arzneibuch," is doubtful.

The list of remedies includes a good many therapeutic novelties, among which may be noticed certain preparations of a character specifically German, such as sebum salicylicum. The full list of substances newly introduced is as follows:—

Acid. nitric. crud.	Keratinum
" trichloracetic	Liquor ferri albumin.
Adeps benzoatus	" " iodat.
Aether bromatus	Mentholum
Agaricinum	Naphthallinum
Alhumen ovi sicc.	Naphtholum
Amylen. h. drat.	Natr. thiosulphuric.
Antifebrin	Paraldehydum
Antipyrinum	Phenacetinum
Bals. toluatan.	Physostigmin. sulphuric.
Capsulæ	Resoreinum
Chininum tannicum	Rhizoma hydrastis
Chloral. formamidat.	Rotul. Sacchari
Cocain. hydrochlorat.	Salol
Codein. phosphoric.	Sebum salicylicum
Cortex quillaie	Sem. arecæ
Cuprum aluminat.	" strophanthi
Emp. canth. pro usu veterin.	Species diureticæ
Extr. condurag. fluid.	Styli caustici
" hydrast.	Sulfonallum
" secale corn.	Terpinum hydrat.
Ferrum oxydat. citric.	Thallinum sulphuricum
Gutta pereha	Tinct. strophanthi
Homatrop. hydrobrom.	Ung. acidi borici
Hyoscin. hydrobrom.	Vinum condurango

It is significant that the Commission has included such substances as antipyrin, salol, and paraldehyd, under the name by which they are generally known, and has not considered it necessary to re-christen them.

Of the above list, homatropine, hyoscin, and physostigmine have to be kept in the poison-cupboard, and the following have to be kept separate from ordinary drugs, and to be dispensed only when prescribed by a physician:—

Acid. nitricum	Cupr. aluminat.
" trichloracetic	Paraldehyd.
Agaricin.	Phenacetin.
Amylen. hydrate.	Sem. strophanthi
Antifebrin	Sulfonal.
Chloral formamidat.	Thalliu.
Cocain.	Tinct. strophanthi
Codein. phosphoric.	

The consequence of placing these articles in this class is that such drugs as sulphonal can no longer be offered by druggists and sweetmeat manufacturers, and their sale is confined to chemists.

The appended list contains the names of the medicinal articles and preparations which, being in the previous edition, have been omitted from the the new edition of the German Pharmacopœia:—

Acatum digitalis	Fol. menth. crisp.
Acid. carbolic. crud.	Fruet. phellandril
" hydrochl. "	Gelatina carrageen
Antidot. arseniel	" lichen. island.
Arg. flor. aurantii	Glandul. lupuli
" menth. crisp.	Herh. cannab. ind.
Calc. phosphor. crud.	Hydrarg. jodat.
Castorenm	Lactucarium
Chinin. bisulfuric.	Laminaria
Chinoidin.	Liniment. terebinth.
Codein.	Liquor corrosiv.
Cnpr. oxydat.	" ferri sulph. oxyd.
Decoet. sarsaparillie mit.	Mang. sulfuric.
Extr. aconiti	Morph. sulfuric.
" cannab. ind.	Natr. benzoicum
" digitalis	Ol. amant. flor.
" graminis	Oleum capcuti
" helenii	" coen
" quassiae	" rapæ
" sabine	Plumbi jodat.
" scillæ	Radix helenii

Radix liquirit. (span.)	Tinct. cannab. ind.
Rhiz. graminis	" castorei
" imperatorii	" chinoidine
" tormentillæ	" croci
Sabina	" ipœacuan.
Syrup. aurantii flor.	Ungt. sabine
Tinct. aloës	Vinum chinie
" asafoetid.	Zinc. sulfo-carbolic.

Among the novelties may be specially mentioned the fluid extracts which are to be prepared by percolation.

As in the previous edition, neither formulæ nor atomic weights are to be given in the official work. As regards nomenclature, only the Latin and German names are inserted, though a list of synonyms is appended. Also there is no table of solubilities, as this physical factor is given, where necessary, in the text.

With the object of simplifying or of increasing the accuracy of tests much has been done, and alterations have been introduced; wherever it is possible volumetric have been preferred to gravimetric methods of estimation. More detailed particulars are given with regard to the comminution of drugs, and by the figures 1 to 6 are indicated sieves of graduated mesh, corresponding to varying degrees of disintegration, from coarsely cut drugs, through medium and finely cut, to coarse, medium, and finely powdered material.

The Pharmacopœia also gives general directions for the preparation of granules, liniments, pills, suppositories, and tablets; and altogether praiseworthy and fairly successful efforts have been made to obtain uniformity, consistency, and order in the arrangement. The work will, we predict, be regarded by those capable of judging as a decided improvement in many respects.

SELLING QUININE FOR FUTURE DELIVERY.

FOR some weeks past there has been a revival, on a rather modest scale, of the speculation in quinine, which at irregular intervals lends a temporary flicker of excitement to the dealings in that unfortunate product. In spite of the oft-repeated lessons of former years, it seems that there are still persons sanguine enough to believe that a good thing is to be made by investing money in quinine. There are never wanting intermediaries who, with an eye to brokerage, are ready to prove with the aid of statistics that the market *must* soon take a turn for the better, and that if facts hitherto have unfortunately failed to agree with their predictions, so much the worse is it for the facts. Any spasmodic revival of speculation brings grist to the mill of the brokers who are manipulating the purchases on behalf of investors, and the kernel of whose philosophy may be considered to lie in the axiom *après moi le déluge*. Outsiders have been drawn into the stream by relying on the slender knowledge displayed in certain "financial" journals which have permitted their columns to be used for the furtherance of some operators' views. The communication which we print on another page of this issue from an Amsterdam cinchona-broker of standing may be studied to some advantage by people who are always ready to allow themselves to be drawn by the infallible statistic system. Our correspondent propounds the theory that the quinine price cannot permanently advance so long as one or two "speculative" manufacturers are able to depress it to their own immediate advantage, and with complete impunity so far as they themselves are concerned, by a simple but efficient system of contracting with the Java planters to supply them direct with their bark at a price to be dependent on the basis of the quinine unit existing at the time when the bark shall be delivered. The planter thereby saves auction expenses

brokerage and warehouse charges; he knows that, come what may, he is sure to be able to dispose of the whole of his produce at the market price of the day; and preferring modest certainty to capricious chance, he delivers himself into the hands of the speculative manufacturer. Now what is the position of the latter? He has to face a keen competition, and can only keep his head above water by either forming a "combination" with his rivals, or elbowing them out. "Combination" has been tried and found wanting, and the other alternative is therefore being pursued with vigour. The manufacturers' mode of procedure is sketched as follows: Having made his contract with the planter, and knowing that he can depend with certainty upon a supply of bark equal to, say 300,000 oz. of quinine in the course of the season, he proceeds to attract buyers by offering quinine at an exceptionally low figure, to be delivered, say in four or five months' time. Being the lowest in price, he secures orders, and his rivals, who have to buy their material mostly at the public sales, are bound either to follow suit, handicapped by the want of a certain cheap supply of cinchona in the future, or to give up the competition and trust to the established reputation of their brands for the preservation of certain channels of consumption. When delivery of the quinine is due, the "speculative" manufacturer is in possession of the cinchona from his Java planters, and as he pays them upon the basis of the quinine unit ruling at the time of delivery—which, in a period of abundant supply, he is able to influence towards depression by underselling his competitors in advance—he is sure to make a profit, small maybe, but absolutely certain, the Java man paying the piper. The names of the clever operators referred to will occur at once to anyone familiar with the London drug market. As a matter of fact there are, and have been for a long period, only two or three so-called "speculative" quinine makers. The others have ceased to "compete" seriously in the "future delivery" business, and are waiting for the time when the system, which must naturally be a hazardous one, shall be relinquished. In confirmation of our correspondent's theory, for which we disclaim any responsibility ourselves, but which is certainly an ingenious one, we may point to two items which were published in our journal about a year ago. At a meeting of the Soekahoemi Agricultural Association of Java (to which most of the cinchona planters of the island belong) held early last year, a letter was read from Messrs. Zimmer & Co., of Frankfort-on-the-Main, expressing a desire to enter into negotiations with Java cinchona growers for the purchase of their entire production of bark outright, to save charges. At the annual meeting of shareholders in the Soekanegara Company held in Amsterdam last June, it was announced that the whole of the cinchona produced on that company's plantations had been consigned to the Brunswick Quinine Works at an average price (for 1888) of about 10½d. per oz. for its equivalent of quinine sulphate. The Soekanegara plantations produced in 1888 104,000 kilos. bark, equal to 4,680 kilos. quinine; in 1889, 132,000 kilos. bark, equal to 5,610 kilos. quinine; and their estimated crop of 1890 is 100,000 kilos. bark, expected to yield 4,500 kilos. quinine. They rank among the three or four largest private plantations in Java.

CONDY'S DISINFECTANT FLUID.—"An American speciality" (says *Pharmac. Central.*) is made by dissolving 53 parts of potassium permanganate in a hot solution of 333 parts of aluminium sulphate in 777 parts of water. When it cools the potash alum crystallises out, and what remains is the disinfectant. Our contemporary has quoted from the New York *Phar. Rundschau*.

COMMENTARY.

PHARMACY IN SCOTLAND.—Our experience of the North British Branch is that the best policy is to "leave well alone"; but it is not "well" to find that a meeting convened with due official formality should be attended by 11 only of the 300 constituting the voting strength of the Society in Scotland. The members seem disposed to leave everything to the few competent and energetic men who manage the affairs. But this will not suffice to maintain the reputation of the Branch, nor is it likely to be favourably considered by the body which supplies the funds for carrying on the useful work in Edinburgh. If the Scotch enthusiasm is at all indicative of the condition of the Society generally, there is every reason why Mr. Carteighe should have embarked upon his missionary enterprise. But why clamour for more members when 289 out of 300 show no interest in what is going on? What the Society has to do is not to enlarge its coasts, but to till the ground it already occupies.

A USE FOR JAPAN STAR-ANISE.—We have more than once had occasion to comment upon the frequency with which spurious, or so-called Japanese, star-anise (from *Illicium religiosum*) is offered at the drug-auctions. Formerly these seeds, which were first commercially made known in Europe in 1879, were never disposed of in the public auctions, yet the fact that fresh supplies are constantly met with shows that the drug finds an outlet somewhere—most likely as an adulterant of the true seeds. Recently, however, some parcels of Japanese seeds have been bid for and sold at the auctions, and we now gather from a German source that the fruits are being distilled in Germany by certain distillers of essential oils, the yield, it is said, being so extremely satisfactory that it is probable that before long Japanese star-anise will be universally employed for oil-distilling purposes, the more so as it may be had at one-sixth of the price of genuine star-anise. It may be, of course, that the German distillers have discovered some method of obtaining from Japanese star-anise (which under ordinary circumstances would yield an essential oil totally different in flavour from the fragrant oil of the true seeds) an aromatic essential oil, and that the poisonous principle found in the seed is absent from the distillate; but unless these factors exist, it is difficult to see what legitimate use the essential oil of the false seeds could be put to.

THE PRODUCTS OF JAMAICA.—Much is expected of the forthcoming Jamaica Exhibition for the development on more scientific principles of the fruit trade of the island, which is already a source of considerable profit to its people, and presents almost unexampled possibilities of increase. Last year appears to have been a very bad season, yet the exports of fruit from the island embraced 2,881,313 bunches of bananas, 701 barrels limes, 170,988 mangoes, 35,394,271 oranges, 8,292 dozen pineapples, and 33 barrels shaddocks, the whole representing a value of over 300,000*l.*, most of which goes to New York. But the Jamaicans are new to the industry, and unable as yet to compete with the experienced fruit-packers of Southern Europe. It appears that the cultivation of ginger must pay pretty well—at least, the acreage under cultivation of this vine has grown from 130 acres in 1879, to 218 acres in 1888. Pimento remains about stationary but arrowroot is almost dead; in 1888, only 10 acres were under this crop. As regards drugs and spices the principal items of interest exported from Jamaica, are the following:—

Pimento ..	46,130 cwt.	value, 1889,	47,842l.	1888,	44 728l.
Ginger ..	8,952 "	" "	18,615l.	" "	19,463l.
Beeswax ..	1,018 "	" "	4,572l.	" "	4,823l.
Annatto ..	4,070 "	" "	3 799l.	" "	3,584l.
Limejuice ..	77,745 galls.	" "	3,239l.	" "	2,865l.
Quassia ..	15,000 cwt.	" "	1 300l.	" "	437l.
Honey ..	1,248 "	" "	1,248l.	" "	1,344l.

Smaller amounts fall to cinchona (3,321 lbs.), tamarinds (1,775 cwt.), and arrowroot (87 cwt.). The total value of the exports in which the drug trade is more or less interested is about 80,000l. a year.

HOW WE WOKE UP THE FRENCH.—A correspondent of the *Pharmaceutical Era* gives, in the last issue of that journal, an interesting account of the Paris Society of Pharmacy, in the course of which he states that "the *Journal de Pharmacie et de Chimie* has followed the general progress of book and newspaper printing and editing, occasionally being forced to it by competition. For instance, the meetings of the Society of Pharmacy, which never take place later than the 7th of each month, were formerly reported in the journal, bright and early, on the 1st of the following month. But for a few years past, the London CHEMIST AND DRUGGIST having regularly published accounts of the meetings in its next issue, so that they could be read in Paris on the Saturday morning, or less than three days after the sitting, the journal has been compelled, grumbling, to publish the proceedings in its issue of the 15th."

THE AMERICAN TARIFF BILL.—The McKinley Tariff Bill is still under consideration of the United States Senate Finance Committee, and will probably not leave the hands of that body until October next, when it has again to come under the consideration of the Legislature. The section applying to chemicals has already been considered and passed, but it appears that the result of the committee's deliberations is kept strictly secret. It is an instruction to the Finance Committee to report a statement with the Tariff Bill showing the duties now levied and the duties proposed under the McKinley Bill, and in every case in which the committee shall recommend an alteration, the report must give the reasons for such change. The new Bill, if it keeps to the lines of its originators, will have the effect of increasing the duties on a great many goods, including drugs and chemicals, to a very considerable extent, and for this reason even the American druggists are agitating against it. From a purely free-trade point of view it is to be wished that the Bill may be made law in its most stringent form, as the reaction which will inevitably set in if the American tariff is still further increased, must be all the stronger in that case. During the last year the imports of chemicals, dye-stuffs and medicines in the dutiable list amounted in value to \$13,319,696, upon which an average duty of 36 per cent. was paid, or about 9 per cent. less than the general average of duties. In the monthly Treasury statements very few of these imports are described at all; so that consumers are not permitted to know their prices and the duties upon them. In the statement of last year's imports of chemicals and dyestuffs upward of \$4,000,000 is classified under the miscellaneous description of "all other"—for want of time and inclination on the part of the Treasury officials to extend the list. The McKinley Bill, it is said, proposes to increase the duties on these articles very materially. Specific duties are to be changed to *ad valorem*, and *ad valorem* to specific; but in each instance the change would effect an increase in the rate of duty. The duty on linseed oil is to be raised from 25 cents to 30 cents a gallon. On nearly all materials for the dyer and painter the duties are to be increased. Even upon water-colours the duty is to be doubled—from

25 per cent. to 50 per cent. *ad valorem*. Upon olive oil the duty is to be increased from 25 per cent. to 35 per cent. in order to encourage American consumers to use native cottonseed oil in place of it.

PRE-VICTORIAN SOVEREIGNS.—A Yorkshire correspondent of the *Grocer* says that the bankers there are in the habit of discounting pre-Victorian sovereigns, even though of full weight. He has written to the Chancellor of the Exchequer, and has received a reply stating that bankers are not justified in refusing to accept such full-weight sovereigns as 1l. sterling.

GERMAN SHILLINGS.—Our caution given last week in regard to the so-called German shillings turned out to be a false alarm. It was true that for a time the banks were refusing certain shillings under the impression that they were not genuine, but on the day when our note appeared the Chancellor of the Exchequer caused it to be explained that the new coins were made from a slightly different die. Mr. Frederick Davis, B.Sc., 86 Newington Causeway, sends us copy of a letter received from the Mint on the subject in reply to a letter he had sent stating that he had analysed one of the shillings and had found it to be sterling silver. The Mint authorities replied explaining that in 1889 the head of her Majesty on the shillings coined was slightly enlarged in their die, and that the coins were quite genuine.

PERMANENT HYPODERMIC INJECTIONS.

BY H. W. JONES, F.C.S.

THE three official hypodermic injections are not permanent, and, however fully they may represent the respective drugs when first made, they soon change; and, therefore, do not stand a chance commercially against those produced by specialists, who send out solutions labelled "Permanent," or as preserved with a "harmless hydrocarbon." In the case of both apomorphine and ergotin the British Pharmacopœia orders camphor-water as the solvent, and at the same time acknowledges its lack of preservative power by directing the injections to be "made as required for use"—generally the most inconvenient time that could be chosen. The official morphine injection is very liable to change, first deepening in colour, and ultimately showing a deposit; and in this condition it may even happen that a paper-filter will exert little or no influence towards producing a bright filtrate. The "Art of Dispensing" suggests several preservatives, and the "Extra Pharmacopœia" does the same thing. Professor Atfield, in his report for 1889 on the British Pharmacopœia supplied to the General Medical Council, suggests that recently well-boiled distilled water should be employed for making morphine injection, as given in the new Dutch Pharmacopœia. By so doing the micro-organisms of the water are destroyed, and one cause of change, and, of possible irritation, is obviated. The idea of sterilising was advocated many years ago; thus, Adrian, in 1872, suggested boiling in conjunction with glycerine, and other workers have suggested more elaborate precautions. The idea of employing sterilised water is certainly a good one, and in all cases should be adopted. But it remains a fact that such water will not remain sterile unless cooled in filtered air, and the act of opening a bottle or adding an ordinary commercial alkaloid will upset the sterility of the liquid. With the alkaloids and their salts there is a great difference in the keeping qualities of various samples of the same kind when made into solutions, probably due to air-exposure under a different set of conditions. Taking it as a matter of fact that ordinary air and the alkaloids of commerce are not germless, and that the greatest change to be guarded against is that liable to occur from the growth of micro-organisms, then sterilising the water is but one step in the direction of permanency, and an addition in the form of a "preservative" is obviously necessary. As antiseptic agents for the purpose we have had proposed glycerine,

eucalyptus water, chloroform water, hydrate of chloral, thymol, carbolic acid, salicylic acid, boric acid, benzoic acid, &c. The addition of glycerine thickens the injection, if added in sufficient proportion to be reliable, and renders it somewhat "messy," if not actually irritating. Eucalyptus water, boric acid, and benzoic acid are doubtful preservatives, failing entirely with some substances. Hydronaphthol in weak aqueous solution is decomposed by light, and throws down a brownish deposit. Thymol, chloral hydrate, chloroform water, carbolic acid, and salicylic acid remain as efficient preservatives. Of these, however, the writer would limit himself to three, viz.:—

Salicylic water (made in the cold by saturation, and filtered).

Thymol (1 grain rubbed down with 4 oz. of water).

Chloroform water (P.B. strength).

Using, however, sufficient dilute hydrochloric acid (with chloroform water) to produce a faint acidity in the case of apomorphine injection.

Salicylic Water.—This cannot be used for making morphine injection, as the writer found the solution soon became charged with a crystalline deposit. On the other hand, it was found to be, after comparative trials with other substances, the best agent for eserine, and the sulphate dissolved in salicylic water remains practically unchanged, the usual coloration scarcely appearing. Salicylate of eserine is well known as a stable salt, and for injections for the human subject it is sufficiently soluble (solubility 1 in 140) to allow of its use; but, as eserine is very largely employed by veterinary practitioners, and as the salicylate is not sufficiently soluble to allow of a strength of 1 in 80, or even stronger, it is worth bearing in mind how well salicylated water acts with the alkaloid in question in the form of sulphate, which is a most soluble salt and the one most generally met with.

Thymol Water.—This is a good preservative for ergotine, especially if the acid phosphates of potash and lime be first removed by neutralising with ammonia, as suggested by Mr. Gerrard (*vide* "Art of Dispensing"). It also answers very well for other substances.

Chloroform Water.—This is possibly the simplest and best of all preservatives, and answers equally well for all kinds of injections, and for making a permanent solution of morphine leaves nothing to be desired. The colour does not change, or only changes very slightly on keeping, and no deposit forms. At least this is according to the experience of the writer.

As salts of the rarer alkaloids are now as easily obtainable as the alkaloids themselves, they are best bought in the combination required. The commoner stock alkaloids of every pharmacy may be converted into injections as under:—

Aconitine (English), by dilute sulphuric acid.

Codeine, by dilute phosphoric acid.

Strychnine, by dilute hypophosphorous acid.

Caffeine, by a strong solution of sodium salicylate (q.s.).

In each case using chloroform water, and adding the solvent very carefully to the alkaloid in the presence of a small portion of the water.

Strength of Injections.—There appears to be no rule whatever. In case the strength is not specified, it is convenient to put the maximum dose in each 10 minims and to label accordingly. When ordered of a definite *percentage*, grain measures should be used, as a minim of water is not quite a grain.

TESTING FOR ACIDITY.

ACIDITY IN MILK DETERMINATION IN CHEESE-MAKING.

AT the show of the "Bath and West and Southern Counties Society" just concluded at Rochester there was exhibited by the "Dairy Supply Company," of London, a simple apparatus for the rapid and accurate determination of acidity in milk. It consisted merely of a small glass tube, a stirring-rod, and a little bottle of pellets. This was devised by Mr. A. W. Stokes, F.C.S., F.I.C. The pellets contain the fraction of a grain of alkali mixed with a colouring matter or "indicator." This indicator produces no colour in an acid solu-

tion, but turns pink directly the acid is neutralised. The directions given for this are as follows:—

Fill the tube to the mark with milk. If the milk be thick, add about an equal bulk of water after filling up to the mark.

Drop in a pellet and crush it with the end of a glass stirring-rod. (The end of a penholder or other stick will do if the glass rod is lost.)

Stir or shake the contents of the tube vigorously. If no permanent pink colour is produced, drop in another pellet and proceed as before.

When a pink colour is produced note the number of pellets dropped in. This number will give, in tenths of a per cent., the total acidity of the milk in terms of lactic acid.

Thus, if it took seven pellets to produce a pink colour, the milk contains seven-tenths of a per cent. of lactic acid. Or if it took 13 pellets, then the milk contains one and three-tenths per cent (1.3%) of lactic acid.

Mr. Stokes claims that the apparatus (1) does away with the necessity of the use of burette, burette-stand, pipette, beaker, standard-solution, and indicator-solution. These, to persons not accustomed to them, such as dairymen, are difficult to use and easily breakable. (2) It is very inexpensive, the whole apparatus, including three dozen pellets, costing only 1s. (3) It is not easily breakable, and is far simpler than the usual methods. (4) There is practically no calculation required. (5) In the hands of the farmer it is more accurate than the most elaborate method of the analyst would be. It can be used at night-time. We may note that the acidity of milk varies in cheese-making from 0.8 to 1.6 per cent. of lactic acid, so that there is not a long range for determination. Of course in starting four or five pellets may be added straight off in just the same way as the standard-solution is usually run in rapidly at starting to save time. It is hard to imagine the process being made much simpler. The inventor has obtained a provisional patent for the application of pellets, pilules, and tabloids in determining acidity or alkalinity in any substance. Messrs. Allen & Hanburys are the makers of the pellets.

NEW COMPANIES.

LONDON DRUG AND DENTAL.—Formed to acquire and carry on the business of Charles Samuel Bensted, Richard Morgan, and the Sapo Detergent Dentaline Company respectively. Capital, 7,500*l.*, in 17 shares. First shareholders are:—C. S. Bensted, dentist, 10 New Broad Street, London; Richard Morgan, chemist, 5 Liverpool Street; Samuel Mawer, registration agent, 114 Chestnut Avenue; W. Ward, newspaper proprietor, 53 Forest Road, Forest Gate; S. Wilkinson, hatter, 4 Liverpool Street; Frank Fuller, secretary, Esk Villa, Hainault Road, Leytonstone; and H. Howard, clerk, 32 Allendale Road, Denmark Hill. First directors (two to five), C. S. Bensted, R. Morgan, and W. Ward, and their appointees. Qualification of other than first directors, fifty shares. Remuneration *nil*, until 5 per cent. dividend shall have been paid, and then 25*l.* per annum until otherwise determined in general meeting.

CHEMISTS' SUPPLY.—This is the title of a company formed to carry on the business of chemists, druggists, and importers and manufacturers of chemical and other preparations, apparatus, and materials, by the adoption of an agreement dated June 9, 1890, made with Frederick Gwilym Treharne, chemist, of 86 and 88 Leadenhall Street, London, the particulars whereof are not specified in articles of associations. Capital, 10,000*l.*, in 57 shares. The subscribers are the above-named F. G. Treharne; Robert Maxwell Sopwith, druggist, 6 Hall Street, City Road; John Edward Moxey, coal merchant, Enfield; H. E. Sparks, 6 Shaftesbury Terrace, Haringay, accountant; Louisa A. Moxey, Oakfield, Enfield; Florence L. Treharne, Colcot, Enfield; and Mary A. Treharne, Colcot, Enfield. F. W. Treharne is to be first manager, at a salary specified in agreement above referred to.

AN enterprising German apotheker of 32, who is on the outlook for an apotheker and cannot get one, has adopted the plan of advertising for a wife, who must be the daughter of the proprietor of an apotheker.

AT THE FRENCH EXHIBITION.

THE exhibition at Earl's Court has now been open for several weeks, and might therefore be supposed to have approached a stage when completion had become perceptible on the horizon. A representative of THE CHEMIST AND DRUGGIST accordingly paid a visit to the show early this week for the purpose of seeing for himself how the French druggists and manufacturing chemists had availed themselves of what Mr. Whitley, the exhibition promoter, calls the opportunities "to benefit largely the commerce, and still further cement the *entente cordiale*, between the two nations."

So far as the first-named of these opportunities is concerned, we fear that the exhibition must be pronounced a disastrous failure. Eliminate two or three dozen firms who have either sent exhibits of some pretension to intrinsic value, or whose names are sufficiently weighty to impress a stamp of importance upon an otherwise dull and unmeaning collection of samples, and nothing remains but a scratch lot of stalls of a third-rate fancy-fair character, offering nothing new, and containing little that deserves more than a passing glance. But the half-deserted exhibition building during the day, and the pleasant grounds at night, afford ample opportunity, of which full advantage is taken, for the promotion of that *entente cordiale* between the two nations (and sexes) so dear to the souls of exhibition-runners. There are twelve groups in the building—we are now speaking of the exhibits—occupying an area of upwards of 140,000 square feet, and forming (we quote from the official catalogue) "such an interesting display as must redound to the honour of France, and the credit of the committees, and add fresh laurels to the already high reputations of the exhibitors, thus reviving in London, though on a smaller scale, the glories of the late International Exhibition in Paris—the most successful the world has ever seen." Each group is furnished with a separate executive committee, with president, vice-president, secretary, and about a dozen members complete. In some of the groups the concrete result of the labours of this elaborate machinery is, perhaps, a trifle disappointing. Take Group X.: "Products of the Sea, Fisheries, and the Chase, Naval Architecture." The executive committee for Group X. have succeeded in landing one single exhibitor, and that one the firm who acted as forwarding agents to a good many of the exhibitors in the other sections, and who are supposed to show "models illustrating the carriage of goods by land and by sea; maps and publications." The drug-trade has had allotted to it Group V., not far from the entrance to the gardens. The committee of this group contains sixteen names, while according to the catalogue there should be thirty-six exhibitors. But, as a matter of fact, only about half that number are actually installed. ADRIAN & CIE., 11 Rue de la Perle, Paris, have a rather small but very tastefully-arranged stand, containing samples of a few of their preparations in various stages of manufacture. There are beef essences and powders; "poudre de bifteck"; meat in long, brown, fibrous strips, dried at 100°; and so forth. A considerable part of the case is also taken up with turpentine derivatives, including terpinol and a large bowl of dull white crystals of terpene. The extracts made by Adrian's vacuum apparatus, which we described at the time of the Paris Exhibition, are also shown here along with the exhausted drugs, the residues of rhubarb, Loxa bark, ipecacuanha, and other drugs, appearing in porous, spongy masses. Something original in the way of a show-case has been accomplished by WARRICK FRÈRES, of Grasse. Their stand is scarcely 2 feet high from the ground, and suggestive of a tombstone. In the centre is a flat case bearing the address of the firm, and supported at each corner by three "pommade" tins. Around this are grouped four smaller show-cases, filled with bottles of essential oils and cachous. There are also photographic views of Grasse and the firm's factory in that town, and a small copper model of a still. FAYARD, BLAYN & CIE., 30 Rue St. Merri, Paris, show specimens of a medicated paper, which is recommended as an alleviator of pain, if placed on the affected part, in cases of gout, rheumatism, corns, and

wounds. This case also contains some samples of rhubarb elixir and similar preparations. BRIGONNET & NAVILLE, la Plaine St Denis (Seine), are exhibiting through their London agent, Mr. B. Kuhn, of 36 St. Mary-at-Hill. Coal-tar derivatives are the specialties of this firm, which dates back almost to the beginning of that great industry. In common with so many other aniline-dye manufacturers, Messrs. Brignonnet & Naville have recently turned their attention to the preparation of medicinal agents from toluol. In this department they have produced exalgine, which is rapidly coming into vogue as an efficient analgesic, and in this country has been well spoken of by Professor T. R. Fraser, of Edinburgh, and other therapeutists. In $\frac{1}{2}$ to 4 grain doses exalgine has been found to relieve acute pains of rheumatism, sciatica and lumbago. It is free from after-effects, and the doses in which it is administered are considerably smaller than those of antipyrin and antifebrin, with which medicaments it enters into competition. The exhibit also contains specimens of a spray by which chloride of methyl—a compressed gas producing, by evaporation in the air, a temperature of -8° F. or 40° frost—can be thrown upon the parts affected in cases of facial neuralgia, sciatica, and rheumatism. The action produced by the sudden projection of the gas upon the affected parts causes a revulsion which subdues the pain. Professor Vincent's chloride of methyl vaporiser is a somewhat smaller apparatus, intended to serve the same purpose. Among the specimens shown in this case are anisol, mirbane oil and benzoic acid *ex toluol*, &c. CHARLES CORNU, 41 Rue de Vannes, Paris, is just fixing up an exhibit illustrating the administration of medicines by means of gluten capsules, in which the salts are held in solution, thus ensuring the absence of a disagreeable taste, exact dosage, and complete assimilation of the medicaments in the digestive tract. The last-named claim M. Cornu insists to have been proved completely in several clinics where his preparations have been tried. It has been found, he states, that subjects who were unable to tolerate bichloride of mercury or iodine salts under any circumstances experienced no ill effects whatever when these remedies were administered in the form of Dr. Warin's gluten globules. Close to this exhibit a French soap manufacturer makes an almost abnormally big show with a stand of toilet-soaps. It is rumoured that this maker is about to make a determined assault upon the British market. He has certainly succeeded in taking advantage of the prevailing interest in African affairs by associating with his products the name of Mr. Stanley, whose portrait adorns the four sides of the stand. Whether the soap, which is also dedicated to the aristocracy of Central Africa, will find favour in the market which it now aspires to conquer remains to be seen. So far as the art of gaining for it the public favour is concerned, the French manufacturer has much to learn yet from the eminent firms who now rule the British market, and the pitiful doggerel which he distributes to visitors at the exhibition is scarcely calculated to inspire confidence in the excellence of his products. THE COMPAGNIE FERMIÈRE DES SOURCES DE VICHY, with its waters and pastilles, is almost as familiar a frequenter of exhibitions as the monster cake of yellow-covered Chocolat-Ménier. Both are present at Earl's Court, which is about all that can be said of them in that connection. DESNOIX, 17 Rue Vieille du Temple, Paris, exhibits in a moderately-sized stand antiseptic gauze, prepared with carbolic acid, iodoform and corrosive sublimate. There are also salol gauze, blistering-paper, and similar preparations, but none of these calls for special remark. GEORGES LOUIS BORRELL, Bagnolet (Seine), has sent over a case of trotter-oils, machine-oils, and glue in cakes for cabinet-makers, dyers, &c. The case is ornamented with the well-known trophies of horns and bones usually adopted as decorations for such exhibits. The SOCIÉTÉ LA RENAUDINE, 11 Rue du Regard, Paris, make a speciality of a liquid dentifrice with salol basis, of which they show a small but attractive trophy. Next to theirs is a small stand of cinchona febrifuge wine, prepared by G. ROBINET, 55 Rue du Cherche-Midi, Paris, which that gentleman proposes to retail at the rate of 15f. per bottle. CHASSAING & CIE., 6 Avenue Victoria, Paris, are one of the few firms who appear to have made a serious attempt to live up to the grandiose view of the exhibition promoters, that "our old ally and neighbour across the Channel has risen to the

occasion, and is determined that her reputation shall not suffer." M. Chassaing himself has been actively engaged in endeavouring to arouse some interest in the exhibition among his *confrères*, and his own exhibit, at any rate, shows that he is aware of the importance of the British market for preparations such as his. The lower part of his case is occupied by a stand containing copies of his treatise on the peptones, several neat morocco-leather sample-cases and a representation of a pig's stomach, showing the position of the gastric glands which furnish the pepsin. The remainder of the stand is taken up by a fine collection of pepsins, pauceatin, and other digestive ferments and their preparations, to the production of which M. Chassaing brings so much skill and knowledge. C. BUCKET & CIE., 7 Rue de Jouy, Paris, have also participated with a creditable show of their chemicals, among which we noticed caffeine in flocks, crystals of mannite, chloride of camphor in very bold needle crystals, and a remarkably fine specimen of permanganate of potassium crystals. In a neighbouring group TAHL & BAUMANN, Bougival (Seine), have a rather nice exhibit of chalk in powder and lump, white and tinted in various colours. There are two exhibits of mineral-water apparatus, that of PRUDHON & DUBOST, 210 Boulevard Voltaire, Paris, being the only one in a sufficient state of readiness to repay the trouble of inspection.

In the immediate vicinity of the chemical group are several sections where scarcely a single exhibit has yet been unpacked. A notice, it is true, has been affixed on the door of the exhibition office stating that exhibitors whose cases are not ready by June 15, will have their squares cleared summarily, their deposits forfeited, and their space taken possession of by the executive (though what use that body could possibly make of further empty space is by no means clear); but this edict is treated as merely an idle threat.

The grounds are rather nicely laid out, and it is in them that visitors mostly congregate, and the *entente cordiale* is established with a vigour that would put the Foreign Office to shame. There is a Tunisian café concert, and an Algerian ditto, and there appears to be some faint expectation that a Folies Bergère will be opened some time or other in the large hall which two years ago harboured the exhibits of Italian chemicals and essential oils. A miniature representation of the Eiffel Tower is about as unlike the real one as it was possible to make it, and the effect of a panorama of what we are informed, is intended to represent the Champs Elysées suffers too, in some degree, from the apparently accidental omission to remove part of a Spanish sierra of last year's show, which rises frowning immediately behind the Arc de Triomphe. The scenic artist, in fact, has come out strong in mountains. His rendering of the Pyrenees has been particularly effective:

Næ horrid crags, næ mountains dark and tall,

Rise like the rocks that part the switchback line from Gaul,

as the poet might have observed had he lived to see them. Then there is the Wild East, where the Arab chief Larhi-hen-Kess-Kess, vaguely described as "of the African desert," gives his realistic representations. Our representative came across several individuals of the Kess-Kess family, whose complexion and personal fragrance were fully equal to the best specimens of the drug from which they presumably derive their name. Visitors to the exhibition should not omit to see the picture-gallery. Among the works of art which attracted our attention was one representing one of the workrooms of the municipal laboratory in Paris, and another (No. 174) ticketed "Medaille de bronze." This is referred to in the catalogue as "the lion of the caverns," but we believe that it was meant to represent a study of the facial expression of an exhibitor in the chemical section upon finding that he had been awarded a bronze medal instead of the grand prix he had so confidently reckoned upon.

CUTTING IN THE STATES.

PROFESSOR W. M. SEARBY, of San Francisco, is in England just now on a visit to his Lincolnshire and other friends. He is a Lincolnshire man, and holds the Major certificate of our Pharmaceutical Society. When he called upon us the other day we ascertained from him that he served his

apprenticeship with Mr. Walter Martin, of Guildford, a well-known pharmacist now advanced in years, and in feeble health. In 1855 Mr. Searby began business in Norwich along with a brother, and a few years later emigrated to British Columbia, starting a wholesale and retail drug-store in Victoria there. British Columbia had a spurt just then, but that did not last long, and with the stoppage of the mines trade seemed to collapse, credit was demoralised, and Mr. Searby was one of those who suffered. The prospect was utterly hopeless; he found it impossible to get his debtors to square with him, so he paid off his own creditors, and set off to seek fortune anew in California. Now he is one of the most respected pharmacists in San Francisco, owning one of the leading pharmacies there, in which he has a partner, and his abilities have been recognised by his appointment as professor of materia medica in the California College of Pharmacy.

"And how is the drug-trade in California?" asked our interviewer, when the conversation was fairly started.

"It would be all right if it weren't overdone. We have 150 drug-stores in San Francisco, so it is a struggle for some of us."

"Is there much cutting?"

"In face-powders, tooth-preparations, and articles of that nature—that is, proprietary preparations—there is, but patent medicines are not cut."

"That is strange. How do you mauage it? Is it by what you call the 'rebate plan'?"

"No; that does more harm than good to the small retailer." Then Professor Searby proceeded to tell our interviewer how the rebate plan merely enables large buyers of patents to buy certain quantities, generally large, of patents at the lowest possible price, and to resell on equal terms, so that it favours cutting rather than otherwise. What they have done in San Francisco has been done through the Retail Druggists' Association there, a branch at one time of the late National Association, but now carried on independently. Of this Professor Searby has been president from the outset, six years ago. The aim of this association is to keep up prices. Every druggist in the city is a member of it, and they mutually agree to sell at the prices fixed by the committee of the association. Suppose one druggist hears that another is selling a patent at "cut" rates, he waits, if he is a kind-hearted being, for corroboration before he takes action, and then, instead of calling and remonstrating with his neighbour, Mr. Pestle—a proceeding which would give rise to bad feeling—he informs the secretary of the association, and the matter is investigated officially. If it is found that cutting is going on, two or three members of the committee call upon Mr. Pestle, and something like this takes place:—

"We hear, Mr. Pestle, that you are cutting Warner's cure."

"Indeed? I was not aware of it. I will inquire of my clerks."

Then each clerk is interviewed, and probably one is found who is new to the place, and accustomed where he came from to sell at \$1 instead of \$1 25. So the promise is made to maintain the price.

Or the druggist admits that he has cut. "You have nothing to gain by this," say the committee; "we are here representing the whole of the druggists in San Francisco, and if you are determined to sell at a dollar, in twenty-four hours every other druggist in the city will sell at a dollar; if you go lower, so will they. You have everything to lose, nothing to gain. Come, fall in!"

And he generally does. There has not been a case of cutting this past three years which has not been made right by this process of mutual arrangement. There are about 1,500 articles on the list at fixed prices; but means are taken to sound the trade every three months as to alterations. Members of the committee have their districts to visit, and during their visitation they hear complaints and suggestions. It may be that one suggests a reduction on some article. The suggestion is considered, and the alteration is made if it is thought reasonable.

"Would that plan suit for Liverpool or Manchester, think you?"

To that the reply was that San Francisco is very favourably situated. It is far from the base of supplies—Chicago, the most important centre, being 2,000 miles off—and for that reason those who are disposed to cut would frequently be

cornered. But there is the plan, and it has helped to make the druggists of San Francisco a united body, and each one a little better off than he otherwise would have been.

There were other topics discussed in the course of the interview—the California College, the Pharmacopœia, and the immigration of English druggists. A good many of the latter are to be found in the States, and not a small proportion of them are Minor men who pass themselves off as pharmaceutical chemists. There are a few successful ones amongst them, but it is Professor Searby's experience that the pharmacist trained in the States is better adapted to his environment and wins in the race. The struggle there is just as hard as it is here, and those who have failed in the old country need not expect to find fortune waiting them under the stars and stripes.

MEDICATED WINES.

DIETERICH, in the last issue of his *Pharmaceutische Manual*, gives a number of formulæ for the preparation of medicated wines. Few, if any, of these can be regarded as tipples, but all are peculiar for the fact that the wine from which they are made is detannated. We give a selection of the more important formulæ for articles which should be saleable if put up in attractive form and brought before customers in a nice way.

Cascara Sagrada Wine.

White gelatine, in strips	..	..	15 grains
Distilled water	2½ drachms

Dissolve by the aid of heat, and add to—

Sherry wine	28 oz.
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Shake well, set aside for some time, then add—

Tasteless fluid extract of cascara sagrada	..	1½ oz.
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Sugar	1½ "
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Set aside in a cool place for eight days, and filter.

A similar wine, not free from the bitter principle of the bark, may be made by macerating 1½ oz. of cascara sagrada and 1½ oz. of sugar in 30 oz. of sherry, for eight days, and filtering. A *Rhamnus frangula* wine can be made in the same way.

Cinchona Wine.

White gelatine	..	..	15 grains
Distilled water	..	..	2½ drachms
Sherry wine	18 oz.

Detannate in the manner directed above; then add—

Simple syrup	6 oz.
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Tincture of cinchona	6 "
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After eight days, filter.

May also be made with red wine, or direct from the bark, the quantities being:—

Gelatine	..	..	15 grains
Distilled water	..	..	2½ drachms
Sherry wine	..	..	30 oz.
Cinchona bark, in coarse powder	..	10 drachms	
Sugar	..	..	1½ oz.

Macerate for eight days, and filter.

In this case, care must be taken to have the gelatine and wine reaction complete before adding the cinchona, otherwise the alkaloid may be thrown out by the tannin of the wine.

Improved Quinine Wine.

Gelatine	15 grains
Distilled water	2½ drachms

Dissolve, and add to—

Sherry wine	20½ oz.
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Shake, and set aside to clear; then add the following solution:—

Hydrochlorate of quinine	..	30 grains
Dilute hydrochloric acid	..	30 drops
Water	..	1 oz.

After a week filter.

This is double the strength given by Dieterich, as our Inland Revenue requires 1 grain of quinine per oz. to be contained in the wine, if sold without a licence.

Pepsin Wine.

White gelatine, in strips	..	..	15 grains
Distilled water	..	..	2½ drachms
White wine	..	..	25 oz.

Detannate as described. At the same time mix together—

Pepsin	..	..	7 drachms
Glycerine	..	..	6 "
Distilled water	..	..	6 "

Add to the wine along with 40 minims of hydrochloric acid; macerate for eight days, shaking occasionally; then filter.

Senna Wine.

Alexandrian senna leaves	..	..	1½ oz.
Sherry wine	..	..	27 "

Macerate for eight days, press, and strain; then add 5 grains of gelatine dissolved in 2½ drachms of distilled water, and then the following:—

Tincture of orange peel	..	..	1 oz.
" ginger	..	..	½ "
Aromatic tincture	..	..	80 minims
Honey	..	..	2 oz.

Again allow to stand for ten days, and filter.

This wine is an excellent aperient for persons suffering from hæmorrhoids. It should be taken in tablespoonfuls, according to the effect desired.

LANOLIN COLD CREAMS AND COOLING OINTMENTS.

THE peculiar property which lanolin possesses of mixing with water renders it specially adapted for making cold cream and ointments of a cooling nature. It is well known that the presence of water in ointments has a remarkably cooling effect upon the skin, due to the slow evaporation of the water. Dr. Unna, the celebrated skin specialist, has found that the mixture of lanolin with an ordinary fat enables a large quantity of water to be incorporated therewith, and for ointments the proportions given are lanolin 1, fat 2, water 3, and for creams double the quantity of water. The following are a few formulæ suggested by Dr. Unna, the figures in the first columns being for ointments, and in the second for creams:—

Cooling.

		Parts
Anhydrous lanolin	..	10
Benzoated lard	..	20
Rose-water	..	30

Cooling, with lime-water, use the same as above, but lime-water instead of rose-water.

Goulard's Cerate and Cream.

		Parts
Anhydrous lanolin	..	10
Benzoated lard	..	20
Goulard's solution	..	30

Cooling zinc ointment may be made like the rose-perfumed ointment, using 20 parts of zinc ointment in place of the benzoated lard.

Cooling Pomade.

		Parts.
Anhydrous lanolin	..	10
Pomade	..	20
Distilled water	..	30

Any suitable perfume pomade may be used, and lime-water may take the place of distilled water.

ARTIFICIAL MUSK.—Baur's patent (4,963, 1889) directs toluene to be heated with chloride, bromide, or iodide of butyl in presence of aluminium chloride or bromide, and the resulting hydrocarbon $C_{11}H_{16}$ distilled off from the products of the reaction by means of steam. The distillate is then fractionated, and the product of boiling-point 170° – 200° is nitrated with a mixture of fuming nitric and sulphuric acids. It is this nitro-product, which is separated by precipitation with water and recrystallisation from alcohol, that possesses a strong smell of musk.

Trade Report.

Notice to Readers: Buyers.—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., June 19.

THE week under review has been of a rather uneventful character, and there are few alterations to report in our markets. In fine chemicals the only change of importance is in quinine, which is selling at a decline. Cream of tartar is rather inclined to be firmer, citric and tartaric acids remain flat. Sulphonal has advanced, and quicksilver is also dearer, though mercurials have not as yet been affected. In heavy chemicals there has been a considerable drop in bleaching-powder, sulphate of copper is slightly dearer, and in caustic soda there has been a considerable advance. In drugs we have to report a considerable excitement in the Smyrna opium market. American oil of peppermint is somewhat more lively, and in otto of rose business has been done at some advance. From America, Angostura tonquin beans, and jaborandi leaves are reported higher, but all the following articles are called cheaper: Canada balsam, copaiba balsam, spermaceti, senega root, podophyllin, caseara sagrada, jalap, sassafras oil, and oil of wintergreen. In the outside markets there have been several changes, the most notable being the following: Senegal and fine Kurrachee gums are higher, shellac, cocoanut oil, turpentine, and benzol are also dearer; but gum olibanum, Ghatti arabic, block gambier, cloves, black and white pepper, ginger, cayenne pepper, cottonseed oil, linseed oil, and rape oil are all obtainable at lower rates.

ACIDS.—*Citric*: Dull of sale, and there would be no difficulty to buy at 1s. 2½d. per lb. *Tartaric acid* also flat at 1s. 2½d. to 1s. 3d., according to brand and quantity. *Ovalic acid* remains very firm, the nominal price being 3¼d., but it is said that some parcels may be had a trifle under that figure.

BALSAMS.—The new crop of *Canada* balsam is now being offered in America, and the market is flat and easier, the price being quoted at 1s. 1d. to 1s. 4d. per lb., according to quality and packing. *Copaiba* is also reported dull and easier, owing to the accumulation of stocks. Good thick *Maranham* is offered at 2s. 4d. per lb. c.i.f. terms. *Peruvian* balsam is firmly held here at the last quotations. *Tolu* steady at 1s. 3d. to 1s. 8½d. per lb. c.i.f.

BENZOL firm; 90-per-cent., 3s. 10d. to 3s. 11d.; 50-per-cent., 2s. 9d. to 2s. 10d.

BORAX.—Without change, at 30s. from the makers, and 28s. to 28s. 6d. second-hand.

CAMPHOR has been a dead market this week, and we hear of no business either in crude or in refined. English bells remain quoted at 2s. from the makers, while foreign may be had in second-hands at 1s. 8d. per lb.—perhaps a trifle less.

CASCARA SAGRADA.—The new crop is now harvested on the Pacific coast, and as it is generally reported to be a large one, and heavy stocks of old bark have still to be disposed of, there is every prospect, so American advices say, of lower prices. New bark is being offered for forward delivery at 32s. per cwt.

CINCHONA.—The fortnightly auctions were held on Tuesday, and consisted of a moderate assortment, the catalogues comprising the following quantities:—

	Packages	Packages
Ceylon bark ..	1,455 of which	1,172 were sold
East Indian bark ..	524 "	435 "
Java ..	46 "	45 "
South American bark (Calisaya) ..	370 "	132 "
Total ..	2,395 "	1,784 "

A fairly satisfactory tone prevailed throughout the auctions, and occasionally competition became rather brisk, a great many lots being divided among two or more buyers, one firm cutting in as soon as another attempted to drop the price. The prices realised were rather irregular, but the average unit is placed just a trifle above that of the last Amsterdam sales, say, at 1½d. to 1¾d. per lb. for fairly good bark. The Ceylon barks offered did not include anything of particular interest, although there were several parcels of good *Officinalis* bark among the supply. From India there was a fair assortment, and several parcels of renewed red shavings and chips sold at unusually high rates. The South American barks consisted exclusively of Bolivian *Calisaya* quills, which are gradually becoming a feature of some importance at our auctions. It may be mentioned that the supply of root bark at the sales was comparatively heavy, the total weight of this description of bark being nearly 50,000 lbs.—mostly *Succirubra* from Ceylon.

The following are the approximate quantities purchased by the principal buyers:—

	Lbs.
Agents for the French, Italian, and American works ..	110,588
" Mannheim and Amsterdam works ..	103,089
" Brunswick works	65,693
Messrs. Howards & Sons	55,373
Agents for the Auerbach works	45,445
" Frankfort o/M. and Stuttgart works ..	23,651
Mr. Thomas Whiffen	18,485
Sundry druggists, &c.	37,245
Total quantity sold	463,569
Bought in or withdrawn	117,416
Total weight of bark offered	580,935

It should be well understood that the mere weight of bark purchased affords no guide whatever to the quinine yield represented by it, firms who buy a small quantity of bark by weight frequently taking the richest lots, and *vice versa*. An analysis of the catalogues gives the following prices for sound bark:—

CEYLON BARK.—*Original.*—Red varieties: Ordinary thin quillings and dusty chips, 1½d. to 1¾d.; fairly good, bright and quilly mixed, but small and woody chips, 2d. to 2½d.; good quilly bright chips, 3d. to 3½d.; good spoke shavings, 3d. to 4d.; dull, weak, and papery broken quill, 2d. to 3d.; common small and dusty to good bright root, 1½d. up to 4d. per lb. Yellow varieties: Ordinary weak and dull *Calisaya* chips, 2d. to 2½d.; dull branch chips, 4½d.; good strong quilly stem chips, 7d. to 9d.; fine strong quilly shavings, 7d. to 9d. Grey varieties: Dusty and weak chips, more or less mixed with quill, a poor assortment, 2d. to 3½d.; one lot, 4d.; small stem shavings, 3½d. to 4d.; root, dusty and of dull appearance, 4½d. to 7d. per lb. Hybrid chips, 3½d. to 4½d.; root, 7d. per lb. *Renewed.*—Red varieties: Small and dusty to good quilly chips, 2½d. to 4½d.; ordinary weak quillings, 1¾d.; a large quantity of good bright stem chips, 3d. to 4d.; a few lots, 5½d. Good to fine bright spoke shavings, 3½d. to 5d.; fine quilly ditto, 6½ to 7½d. per lb. Yellow varieties: Ordinary chips (*Calisaya*), 2½d.; ditto shavings, 5d.; good strong quilly Ledger chips, 7½d.; shavings, 8d. to 9d. per lb. Grey varieties: Small broken branch to good bold strong branchy and mossy chips, 4d. to 8d.; good bright shavings, 5½d. to 6½d.; ordinary chips and shavings mixed, 3d. per lb. Hybrid stem chips, 3½d. to 4½d. per lb.

EAST INDIAN BARK.—*Original:* Red varieties—ordinary quillings, 1¾d. to 2d.; fair to good quilly chips, 2d. to 3d.; fair shavings, 2½d. to 3½d.; branchy stem chips, 2½d. to 3d.; dull weak papery quill, 3d. per lb. Yellow varieties—ordinary small weak spoke shavings, 3d. to 3½d.; good bright quilly ditto, 6d.; fair to fine bright stem chips, 3½d. to 4d. per lb. Grey bold chips, 4½d. to 5d.; fine quilly chips, good appearance and mossed, 7d. to 9d.; small chips, 3d. to 5d. Hybrid shavings, fine bright quilly, 9d. *Renewed:* Weak red chips, 2½d.; good quilly chips and stem chips, 3½d. to 4½d.; bright shavings, 3d.; ordinary weak, papery quill, 4½d. per lb. Yellow chips, stem and branch, 7½d.; fine bright quilly shavings, 7d. to 9½d. per lb. Grey good bold bright chips, 8½d. to 8¾d. per lb.

JAVA BARK.—Dull dusty Ledger chips and roots, 6½d. to 7½d. per lb.

SOUTH AMERICAN BARK.—Of 23,472 lbs. Bolivian

Calisaya, 5,836 lbs. were sold at 6*d.* to 7½*d.* for fair brown broken quill, and 9*d.* for a fine stout parcel.

Our imports for the week under review amount to 1,960 packages. The exports from Ceylon in the periods between January 1 and May 22 have been as follows:—

1837	1838	1839	1890
Lbs.	Lbs.	Lbs.	Lbs.
5,131,110	4,617,379	4,103,913	3,490,514

COPPER (SULPHATE).—Good quality may be had on the spot at 22*l.* 10*s.* to 23*l.*, and for delivery in July there are sellers at 22*l.*

CREAM OF TARTAR.—Firm at 101*s.* to 102*s.* for best white French crystals; powder is quoted at 104*s.*

GAMBIER.—There has been a decline of about 3*d.* in the prices for forward delivery this week. On the spot very little has been sold. A few days ago small transactions were reported at 28*s.*, and that is the latest price we have heard of. For forward, prices have declined—May-June to 27*s.* 3*d.*, June-July to 27*s.* 3*d.*, July-August to 27*s.* 1½*d.* At the auctions 214 packages *Cube gambier* were bought in at nominal rates.

GUM ARABIC.—The periodical auctions which took place to-day were of good average size, including 2,965 packages East Indian gums of various descriptions, 299 Aden, 88 Alexandrian, 138 Persian, 14 Mogadore, 62 Ghatti, and 162 Australian. There was a fairly good demand, and sales were slightly above the average of recent auctions. Of East Indian gums there was a good demand for pale *Kurrachee Amrad*, for which full prices are being paid; medium qualities are also steady, but common grades are lower in price. Scented *Aden* gums are at a decline of about 2*s.* per cwt., and *Ghatti* is also flat, medium qualities selling at a decline of from 2*s.* 6*d.* to 5*s.* per cwt. There was little sold, however, as the home-trade buyers of those descriptions of gums are abstaining from purchasing just now. The following prices were paid:—Ordinary dark to good ambery *Amrad* drop, from 29*s.* to 46*s.*; good bright ambery *Kurrachee*, 63*s.* to 65*s.* 6*d.*; fair quality, 48*s.* to 50*s.*; fair to good soft pale *Oomra*, 29*s.* to 40*s.* *Ghatti*: very fine white, 60*s.* to 68*s.*; fair to good clean, 47*s.* to 56*s.*; ordinary quality of dark mixed, 23*s.* to 26*s.* *Ghatti* siftings, 9*s.* 6*d.* to 11*s.* Garblings, 12*s.* 6*d.* to 15*s.* *Aden* sorts: Ordinary to fair red *Olibanum* scented drop, 27*s.* to 34*s.*; good bold frosted ditto, 59*s.* *Australian*: Fair to good pale, 33*s.* to 40*s.*; some fine bright red, 55*s.*; block, mixed with wood and dark, 20*s.* to 22*s.* *Cape*: Fine white, but rather dusty sorts, 8*l.* 15*s.*; good ambery sorts, 70*s.* to 76*s.*; fine pale siftings, 72*s.* 6*d.* For insoluble *Persian* gum of very fine appearance, 15*s.* to 20*s.* 6*d.* per cwt. is paid. *Senegal* gum is rather dearer, but the demand is slow. *Galam* is now quoted at 85*s.*; the crop of this season is described as small and considerably below the average. The exports from the Senegal colony this year have been 9,000 bags below those of last year.

GUM OLIBANUM.—Of 878 packages, about 300 found purchasers, prices for the lowest siftings disposed of being distinctly lower, though a large part of the supply is firmly held at high rates; good drop declined from 2*s.* 6*d.* to 5*s.* per cwt. Garblings and siftings, however, were, if anything, rather dearer. Medium to good drop brought 29*s.* to 38*s.*; very fine pale ditto, 60*s.* to 61*s.*; garblings, 13*s.* 6*d.* to 16*s.*

JABORANDI LEAVES.—On the New York market this drug is reported exceedingly scarce, and prices have advanced there to 1*s.* 1*d.* per lb.

JALAP.—We hear that the recent arrivals which have come to this market are mostly held at an advance over the last auction-rates, and that 1*s.* 4*d.* per lb. is the lowest quotation here for good Vera Cruz. In New York, on the other hand, the stock is said to be large, and further arrivals are expected. The last mail brings the quotation of 1*s.* 1½*d.* to 1*s.* 2½*d.* per lb., c.i.f. terms.

OIL (COD-LIVER).—The market is weak, and prices if anything show a tendency to decline still further. The price for new season's non-congealing Norwegian oil is now 52*s.* per barrel, c.i.f. terms. A parcel of 700 barrels "Norwegian cod-liver oil" will be offered for at auction to-morrow.

OIL (MIRBANE).—Steady at 7*d.* per lb. for best white, and 6½*d.* per lb. for red oil.

OIL (PEPPERMINT).—*America* oil of peppermint is reported rather firmer. For H.G.M. oil 11*s.* 6*d.* is now generally asked, though probably some quantity might yet be had at 11*s.* 4½*d.*; this is below the price ruling in America, where the market is much firmer than here. Sales of several hundred cases at rising figures are reported.

OILS (ESSENTIAL).—*Star anise* is very firmly held, and nothing seems obtainable below 6*s.* 3*d.* per lb., which has been paid for small quantities. *Cassia* quiet but steady at 3*s.* 7*d.* to 3*s.* 8*d.* per lb. *Sassafras* oil is reported lower from America at 1*s.* 8*d.* to 1*s.* 8½*d.* per lb. c.i.f. for new crop oil. *Wintergreen* oil also lower, at 7*s.* 5*d.* to 7*s.* 10*d.* per lb. c.i.f. English oil of *Clavcs* is now quoted at 3*s.* 9*d.* to 3*s.* 10*d.* per lb., second quality about 3*d.* per lb. less. Turkish *Geranium* 6*s.* 9*d.* per lb. *Menthol* rather quiet at 7*s.* 6*d.* per lb. for good white Japanese crystals.

OILS (VARIOUS).—*Cocoa-nut* oil rather dearer. Fine Ceylon on the spot 27*s.*, and sales for arrival at 26*s.* c.i.f.; Cochin, 33*s.* on the spot, and good business for arrival at 31*s.* 6*d.* to 32*s.*; Mauritius held from 26*s.* 6*d.* to 27*s.* *Cotton-seed* oil lower; crude, 19*s.* 9*d.*; refined, 22*s.* to 22*s.* 6*d.*; Liverpool refined firm at 22*s.* 3*d.* to 23*s.*; American yellow oil, 22*s.* 9*d.* to 23*s.*; from America the quotation for white or yellow winter oils is 2*s.* 7½*d.* to 3*s.* 1*d.* per gallon, c.i.f. *Linsced* oil easier, at 24*s.* 4½*d.* to 24*s.* 9*d.* on the spot; Liverpool export casks, 26*s.* to 26*s.* 6*d.* *Olive* oil unaltered, for both fine eating and cargo oils; Mogadore, 34*s.*; Syrian, 38*s.*; Spanish, 39*s.* 6*d.* to 40*s.* *Palm* oil steady of sale at 26*s.* for fine Lagos in London, and 24*s.* 3*d.* to 24*s.* 6*d.* in Liverpool. *Rape* oil lower; brown, on the spot, 29*s.* 6*d.* to 29*s.* 9*d.*; refined, 31*s.* 3*d.* to 31*s.* 6*d.* *Petroleum* unaltered; American, 5½*d.* to 5½*d.*; and Russian, 5½*d.* to 5½*d.* *Turpen-tine* dearer; American price, on the spot, 30*s.* 6*d.* per cwt.

OPIUM.—Fresh excitement is reported from Smyrna, and telegrams again announce that hailstorms in some of the growing districts have materially interfered with the crop, and now reduce the prospects to 3,500 cases annually; this has brought about an advance of 1*s.* per lb. in Smyrna, but the London market has not responded, for the prices remain firm; soft shipping opium (Malatia, Tokat, and Salonica) being quoted at 14*s.*, fine *Karahissar* up to 13*s.* 6*d.*, seconds 12*s.* 6*d.*, and *Persian* from 13*s.* 3*d.* up to 14*s.* 6*d.*, according to quality.

OTTO OF ROSE.—Some details about this season's crop in Bulgaria are now to hand. The reports are rather contradictory, and speak of unfavourable weather having interrupted the gathering in certain districts. It appears, however, that the quality of the new oil is good, and so far as can be said at present the yield is likely to give 2,500 kilos. against 3,000 last year. As, moreover, there are very considerable stocks in different centres from previous seasons, the belief is that prices are not likely to advance much. The new quotations have not yet been fixed, but in the meantime we hear that there has been a good deal of business in old oil at somewhat higher rates, say—17*s.* to 18*s.* 6*d.* for good qualities. It should be added that in some quarters it is said that the new crop is likely to be 20 per cent. below the average.

PODOPHYLLIN.—The root is reported lower from America. For the yellow resin 8*s.* to 8*s.* 3*d.* per lb. is quoted, and 13*s.* 6*d.* for brown resin (U.S.P.).

QUICKSILVER.—On Tuesday the principal importers advanced the price from 10*l.* 5*s.* to 10*l.* 10*s.*; in the second hand sellers have been rather reluctant, and are now holding firmly at 10*l.* 14*s.*, but there are no buyers beyond 10*l.* 3*s.* per bottle.

QUININE.—Lower. At the beginning of the week no business was reported, but yesterday and to-day about 40,000 or 50,000 ounces; B. & S. and Brunswick have been sold by second-hand holders on the spot at 1*s.* 1½*d.* per oz.; that is the market quotation to-day.

SENEGA.—The new crop is now being brought to market in the States. The weather has been very favourable during the collection, and a very large yield is expected. As there is also a heavy supply of previous season's root still unsold, prices are falling, and thought likely to decline still further shortly. For old root 1*s.* 7*d.* per lb., c.i.f. terms, is now quoted.

SHELLAC.—At Tuesday's auctions a rather moderate supply was offered, the catalogues including:—

	Cases	Cases	
Orange lac	292 of which	150	were sold
Garnet "	75	"	"
Button "	226	"	201
	533	351	

Orange lac brought very full prices, while *Button* was strongly competed for at about 3s. advance, the following prices being paid: Second orange (VSO and SD in circle brands), good bright worked, 88s.; fair to good reddish, 86s. to 87s. per cwt.; *Button*, fair coloury thirds, 92s.; rather dark seconds, 96s.; good firsts to superior blood lac, 100s. to 107s. 6d. per cwt. Privately there has been a very large business since the auctions, and yesterday and to-day about 4,500 cases changed hands at the call at advancing rates, the rise being fully 2s. per cwt. on the week, and the quotations closing as follows:—

	June	July	Aug.	Sept.	Oct.
Orange TN, seller	88/6	500 at	900 at	100 at	200 at
" buyers	87/	89/	90/	90/6	91/
Garnet AC sellers at 84/ and buyers at 81/					

For July delivery 200 cases AC garnet sold on Tuesday at 82s. per cwt. The market closes strong and rising.

SPERMACELE.—The speculative movement in America seems to have broken down completely, and the second-hand holders are throwing their supplies upon the market, which, in the absence of any export demand, has declined to 1s. 4d. per lb., c.i.f. terms. The manufacturers are not offering much, but they are believed to be accumulating stock to a considerable extent.

SPICES.—*Cassia Lignea* remains very dull of sale at the old quotations. In Zanzibar *Cloves* there has been considerable business this week, at first at declining prices, but since Wednesday at some advance, the loss on the price for forward delivery being about $\frac{1}{8}$ d., and the quotation to-day for July to August delivery is 6d., c.i.f. terms. At the auctions 260 bales were offered, but nothing sold; the nearest spot price was also 6d. per lb., ordinary dull Penang having sold at 8d. per lb. *Chillies* firm, at 37s. for fair. Zanzibar *Cayenne* pepper lower; good Natal, of fresh import, 1s. 6 $\frac{1}{2}$ d. to 1s. 7 $\frac{1}{2}$ d. *Arrowroot* flat, and lower to sell. New St. Vincent, 2 $\frac{1}{4}$ d. to 2 $\frac{3}{8}$ d. per lb. *Ginger*: Very heavy supplies of Cochin ginger continue to be offered, but the market is quite depressed, and from 2s. to 3s. lower; cuttings brought 15s. to 16s.; small to medium washed, 20s. to 21s. 6d.; medium to bold dull cut, 37s. to 53s. Jamaica ginger also cheaper and flat; common dull and rough, 74s. 6d. to 79s.; good bright to very fine washed, 85s. to 110s. *Mace* quiet; medium red to good bright Penang, 2s. 6d. to 2s. 11d. *Nutmegs* steady and in good demand. *Black pepper*: Dull and lower for ordinary qualities. *White pepper*: Fully $\frac{1}{4}$ d. cheaper; for Penang ordinary, 7 $\frac{1}{2}$ d.; good Singapore, 9 $\frac{1}{2}$ d. *Pimento* slow of sale; 2 $\frac{1}{4}$ d. to 2 $\frac{3}{8}$ d. for ordinary to medium.

SULPHONAL.—An important change has occurred in the position of this article. Until quite recently there were about 10 manufacturers, and by competition prices had been brought to a very low level indeed. An arrangement has now been concluded, however, under which, we believe, Messrs. Bayer & Co., of Elberfeld, are to monopolise the manufacture for the bulk of the makers, and the price for this brand has been advanced about 25 per cent.; but we hear that Mr. Riedel, of Berlin, has remained outside the combination, and offers his make below the price of his competitors.

TAMARINDS.—Sales of good new *Barbadoes* are reported at 21s. per cwt. in the private market, but at the auctions 91 barrels of that description were bought in at 21s. to 23s. per cwt. Common *Nevis* and *Antigua* sold at 10s. 6d. to 12s. per cwt.

TEA.—The *China* market is exceedingly quiet, with little inquiry and less business, and a considerable contingent of brokers and buyers are away holiday-making before the new Monings arrive. In public sale lower grades are selling at about last week's rates, and commonest Congou is, perhaps, just a turn firmer, but the finer grades of Moning, Kintueks, and Kecnuns are difficult of sale at the recently enhanced

prices, holders getting nervous as the *Mogunc* with 1890-91 teas comes nearer. Finer grades of Kaisow, Panyong, and Chingwo are firm, and as they are now in small compass are not likely to be cheaper before new Kaisows arrive. *Assams* are in small supply and very firm. A few breaks of new Dooars teas, with very fair liquor, sold at full prices on Monday, but there is no quantity of new tea to affect the market as yet, and in any case it is unlikely that when the bulk of it comes forward prices will range anything like so low as last year, when useful Souchongs were sold at 6d., and ultimately as low as 4 $\frac{1}{2}$ d. and 5d. per lb. *Ceylons* are kept up by the firm rates of Assam, and though the lower grades still show better value than Assam, last Tuesday's Ceylon sale showed an advance of fully $\frac{1}{4}$ d. per lb. on the previous week's auction.

TONQUIN BEANS.—From New York we hear that important sales of *Angostura* beans have been made to consumers. About 10,000 lbs. are said to have been taken out of the market in this way, and for the small residue left holders have advanced their quotations. They now ask from 7s. 6d. to 8s. 6d. per lb., according to quality. The American market has been cleared of *Para* beans.

TURMERIC.—A quiet market, and prices are nominal; 13s. 6d. to 14s. for fair to good *Bengal*. At the auctions 500 packages were bought in at the latter price; fair *Madras* finger is at from 15s. 6d. to 16s. 6d.

CHEMICALS IN THE NORTH OF ENGLAND.

THE CHIEF FEATURE in the chemical market this week is the advance in price of *Caustic soda* in the Lancashire district, and the heavy fall in the price of *Bleaching-powder* in the Tyne district. For other articles the market is quiet, without much change.

BICARBONATE OF SODA is in little demand at the moment, but late prices are fully maintained. For prompt shipment 5l. 15s. per ton, less 2 $\frac{1}{2}$ per cent. discount, is quoted for 1-cwt. kegs, f.o.b. Liverpool, with usual allowances for larger packages.

BLEACHING-POWDER is very weak, and prices lower. For prompt delivery 4l. 17s. 6d. per ton, in softwood casks, f.o.r. and 5l. 2s. 6d. to 5l. 5s. per ton for hardwood casks, f.o.b. Liverpool, less 2 $\frac{1}{2}$ per cent. discount. For forward delivery 5l. per ton, f.o.r., is about makers' price. Some very cheap lots have been disposed of on the Newcastle market, and the low price is bringing more inquiries into the district. For prompt delivery 4l. 12s. 6d. per ton is about the current quotation for softwood casks, and 2s. 6d. per ton extra for hardwoods, f.o.r. or f.o.b. Tyne. Glasgow prices also easier: 4l. 15s. to 4l. 17s. 6d. per ton, f.o.r.; 5l. 2s. 6d. per ton, ex ship Thames, for softwood casks, with usual extra of 20s. per ton for 1-cwt., 15s. per ton for 1 $\frac{1}{2}$ -cwt., and 5s. per ton for 3-cwt. casks.

CAUSTIC SODA has been in good demand, and prices have advanced about 10s. per ton during the week. 60-per-cent. white is quoted for prompt shipment 7l. 5s. to 7l. 10s. per ton, 70-per-cent. 8l. 10s. per ton, and 74-per-cent. 9l. per ton, all less 2 $\frac{1}{2}$ per cent. discount, f.o.b. Liverpool. Newcastle 77-per-cent. has not varied in price, but is still quoted 9l. per ton for solid in drums. The market is very strong, with better demand. Ground 77-per-cent. in 3-4-cwt. barrels quoted 12l. per ton, net cash, f.o.b. Tyne.

CREAM CAUSTIC quiet for prompt, but good inquiry for forward. Present prices are 6l. 12s. 6d. to 6l. 15s. per ton on rails, and 6l. 17s. 6d. to 7l. per ton f.o.b. Liverpool, according to brand.

CHLORATE OF POTASH quiet at the moment, and prices run from 4 $\frac{1}{2}$ d. to 4 $\frac{3}{4}$ d. per lb., less 5 per cent. discount, at Glasgow, Newcastle, and Liverpool.

HYPOSULPHITE OF SODA is very firm, and in good demand both for home and foreign consumption. Large quantities are now exported to South America for extracting silver from ore. Present prices are 5l. 5s. per ton in 5-7-cwt. casks, and 5l. 15s. per ton in 1-cwt. kegs, f.o.r. or f.o.b. Tyne, and 6l. per ton for casks, and 6l. 15s. per ton for kegs,

on rails at Liverpool or Manchester, all less $2\frac{1}{2}$ per cent. discount.

SODA ASH.—There is a steady business doing in this article, and prices range from $1\frac{3}{4}d.$ to $1\frac{1}{2}d.$ per degree for carbonated, and $1\frac{3}{4}d.$ per degree for caustic, both less $2\frac{1}{2}$ per cent. discount, f.o.b. Liverpool. Newcastle carbonated, $1\frac{1}{4}d.$ per degree, less 5 per cent. discount, f.o.b. Tyne.

SODA CRYSTALS are firm, and with a continuation of the present weather prices will probably be fully maintained. For prompt delivery makers ask $2l.$ $17s.$ $6d.$ to $3l.$ per ton f.o.r. and $3l.$ $2s.$ $6d.$ to $3l.$ $5s.$ f.o.b. Liverpool, net weight, and packed in 3-cwt. barrels. Newcastle price is $2l.$ $11s.$ per ton, gross weight, in casks; $2l.$ $13s.$ $6d.$ per ton, net weight, in 1-cwt. bags; $2l.$ $11s.$ per ton, net weight, in 2-cwt. bags, f.o.r. or f.o.b. Tyne; and $2l.$ $17s.$ $6d.$ per ton in casks, gross weight, ex ship Thames.

SULPHATE OF COPPER.—Owing to the advanced price of copper, prices are better, and makers are now asking $24l.$ $5s.$ to $24l.$ $15s.$ per ton for prompt delivery, less 5 per cent. discount; $22l.$ per ton has been accepted for early next year.

SULPHATE OF SODA.—Steady, and stocks in transaction very light. For prompt delivery $27s.$ $6d.$ per ton in bulk, free on rails Widnes and St. Helens, is quoted. Ground and packed in casks for export, $47s.$ $6d.$ per ton is quoted, f.o.b. Liverpool. Tyne market very quiet, with very little doing. Quotations are $30s.$ to $31s.$ per ton in bulk, and $41s.$ per ton ground and packed in casks, f.o.r. or f.o.b. Tyne.

QUININE MANUFACTURERS DEPRECIATING QUININE.

MR. H. A. VAN OVERZEE, jun., cinchona broker, of Amsterdam, sends us the following notes on the subject of the depression in the price of cinchona bark.

Some years ago, when the Amsterdam market began to gain importance, there were many who prophesied that the average percentage of quinine in the Java barks would become so high (10 to 12 per cent.) that one was inclined to question the possibility of placing such quantities of quinine as those barks would yield.

Since then the imports from Java of Ledgers and Hybrids—which two kinds were predicted to be the barks of the future—have shown us that these expectations were greatly exaggerated.

The following quantities of Ledgers and Hybrids have been offered in Amsterdam at the regular auctions.

1888 at 10 auctions about	1,131,000 kilos.	averaging	4.20 p.c.
1889 " " "	1,688,400 "	" "	4.12 "
1890 5 " "	1,220,302 "	" "	4.02 "

It is true that some plantations have not stripped as much rich stem and root bark, as they would have done if the unit value had ranged higher—still, the above figures show clearly that the fear of over-production through the increasing richness of the barks is unfounded.

The stock of cinchona in London, according to the official accounts has declined from 99,600 packages in 1883 to 57,181 packages in 1889.

The stock in Amsterdam in first hands only consists of a few parcels withdrawn from the last sales, whilst in second hands there are never any supplies of any importance. Comparing the stock of cinchona with price of quinine, as follows:

	1883	1884	1885	1886	1887	1888	1889
London bark stock (per kilo.)	99,600	80,500	61,700	62,350	59,619	56,754	57,181
Quinine (florins per kilo.)	135	75	57	24	36½	27½	25½

it is evident that some powerful factor must have operated to produce the constant decline of the price of the manufactured product concurrently with the diminution of the supply of the raw material. What is this factor? I am inclined to think that it is found in the existence of contracts for cinchona between some large plantations in Java and quinine manufacturers direct, in which the price of bark is fixed only upon

arrival of the parcels in the factories, according to the then ruling value of quinine.

Such contracts may seem profitable to some planters, as the producer receives the quinine-value of his barks without any expense except the remuneration of a specialist (who, in conjunction with the quinine manufacturer, adjusts the percentage and value of the bark on arrival), taking into consideration a certain fixed figure for the cost of manufacturing.

The planters, as a body, may be sure, however, that by such a mode of operation they are digging their own graves, for this reason—such contracts enable the manufacturer to sell considerable quantities of quinine for future delivery at low prices, without loss, or even without risk, because he has the guarantee that, however low may be the price at which he sells the quinine, when delivery time comes the necessary quantity of bark will be at his disposal at a correspondingly low figure.

The depreciation in value of quinine is thus actually borne by the planters, yet it is a fact that such a contract exists between a German manufacturer and Java planters, and that this has enabled him for years to sell quinine on future delivery with a profit at the lowest figures, causing at the same time a general depression of the article, to the detriment of the producers.

Whenever this manufacturer lowers his prices, other makers have to follow suit, should they not wish to lose their customers, and they have therefore to make lower bids in the bark auctions where their sales are covered.

It is known that this manufacturer receives every year, under such conditions, cinchona bark with an equivalent in quinine of some 8,000 to 10,000 kilos. (280,000 to 350,000 oz.)—a quantity amply sufficient at all times to bring about any desired fall in price.

In January, 1889, when London quoted quinine at $1s.$ $3d.$, with a slow demand, this manufacturer could sell "future delivery" at $1s.$ $2d.$, without the slightest danger of being caught by an eventual rise in bark values, being certain of receiving direct from Java the necessary quantity of cinchona to cover his sales.

As soon as the price of $1s.$ $2d.$ became known, buyers would not hear of any higher figure, and other manufacturers had to follow suit if they wished to have any chance of doing business.

The consequence was that in the following bark sales no more could be paid than the equivalent of a quinine price of $1s.$ $2d.$ for the barks; the unit in London was thereby reduced from $1\frac{3}{4}d.$ in January to $1\frac{1}{2}d.$ in the following month.

When, after this, in February, sales of quinine at $1s.$ $2d.$ were not so easily accomplished, future delivery was again lowered to $1s.$ $1\frac{1}{2}d.$, which other manufacturers had to concede, and a further depression of bark values was the result.

It was not till some manufacturers paid higher prices for bark to sustain the market that manœuvring was put a stop to, and it became possible to effect a slight improvement.

The holders of bark may try what they like to keep the markets free from abnormal pressure, by judiciously regulating the quantities to be exported: they will always be outdone by the power of manufacturers who hold contracts as described above. It is evident that the bark statistics give no reason whatever for a position such as exists at present, and it is only the finessing of a few manufacturers which since 1883 has driven down the prices of quinine and the value of cinchona to the loss of the planters, whose care it should be to render such things impossible for the future. In the long run, a sound state of affairs can only be brought about by free competition, which under present circumstances cannot possibly exist.

THE ATOMICITY OF MAGNESIUM, as recently determined by Burton and Vorce, two American chemists, is 24.41, if 16 is taken as the value of O. In the course of their experiments an attempt was made to distil magnesium in an ordinary hard potash glass tube, but it was found that the vapour of the metal attacked the glass in a remarkable manner, a black voluminous substance being formed, which evolved a spontaneously inflammable gas on treatment with an acid. This black substance was found to be magnesium silicide, Mg_2Si , and the explosive gas silicon tetrahydride, SiH_4 .



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c., will be attended to in the order received.

Shall the Pharmacy Acts be Enforced.

SIR,—Surely the least that can be expected from the Pharmaceutical Council is that they should send a circular to every chemist on the register, calling attention to the recent interpretation of the Act, and the desirability of conforming to it.

SUAVITER IN MODO. (71/59)

A *Welsh Correspondent* (103/23) sends us a reply postcard, which he has sent to the makers of many doubtful preparations, asking them to tell him, on a form sent for the purpose, whether their preparation does or does not contain any scheduled poison. He says he asks this favour to obviate analysis. He finds that the fact of his properly labelling certain proprietary medicines has been sufficient to induce some of his unqualified friends to drop the sale of these, or at least to be out of stock when asked for them.

Exalgine (71/20) writes to express his cordial support of our paragraph respecting the sale of Paris green by unregistered persons. Says he: "I was the first person to call the attention of the Pharmaceutical Society to the infringement, and had a letter from the Secretary of the Pharmaceutical Society, dated May 13, 1890, saying, 'I have had a visit from one of the representatives of Messrs. Blundell, Spence & Co. (Limited), and have pointed out to him that any unregistered person selling their Paris green would be liable to a penalty.'" [It does not seem that Messrs. Blundell, Spence & Co. understood the Secretary. They told us that the Pharmaceutical Society were satisfied with the explanations they gave them, but we have ascertained that their impression was incorrect.]

Price of Pepsin.

SIR,—In looking at the price of pepsin in three price-lists I was astonished at the difference in the prices for presumably the same article. According to the following comparison pepsin B.P. is quoted in one list 1s. 6d. per oz., in another 3s., and in a third 4s. per oz. Why is this? The only consistency in price is for Boudault's. Can anyone explain why this important article should so vary in price?

Prices per oz. of Pepsin in June Lists.

P.B.		Boudault's		Porci
s. d.	..	s. d.	..	s. d.
4 0	..	3 3	..	8 0
1 6	..	3 6	..	3 9
3 0	..	3 6	..	3 0

Yours truly,
F. W. (71/51.)

Early Closing in Liverpool.

SIR,—Will you kindly allow me to make an appeal to those of our fellow-chemists in this city and neighbourhood,

who have not already joined in the early-closing movement? It is a lamentable fact that in every fold there is the proverbial black sheep, and although we cannot get rid of him we can generally afford to ignore him. But in Liverpool and district there are a few—and I am happy to say only a very few—chemists who appear to be very reluctant to close their pharmacies at the very moderate hour of 9 P.M., and to these, not being black sheep, but highly respectable business men, I wish to point out that, through their present attitude, all the labour of those who have tried to improve matters may be in vain. Surely it is not much to ask for ourselves and assistants that they close their establishments one hour earlier than has been their custom; and yet this one hour makes all the difference between getting out for a walk in gaslit streets after dark, and having an opportunity of enjoying a stroll in the sunset and twilight in the parks and lanes of the suburbs.

Another point I wish to mention is that the meeting of Liverpool chemists held at the Royal Institution on May 29, unanimously resolved to close every night, excepting Saturdays. I observe an indication of the thin end of the wedge of dissent, by some keeping open later on Fridays "because the grocers do so." The publicans keep open till eleven every week-night. Why not we also?

Let us all unite as men, throw aside all feelings of jealousy or envy snatch any opportunity, no matter how slight, of improving our position as a class, and let us each stick to our guns. The public will respect us none the less that we are gradually throwing off the bonds of drudgery in which we have been so long enslaved, and showing that we have a spirit above that of the sordid, though still lean and starving apothecary.

Yours truly,

JOHN BAIN,

Hon. Sec. Liverpool Chemists' Association.

Elm Bank Pharmacy, 122 Robson Street, Liverpool,

June 17.

Perspiration of the Feet.

SIR,—I have had a prescription pointed out to me, which I recently published in the *Brit. Med. Journ.*, and which you have reprinted in THE CHEMIST AND DRUGGIST for June 7. The prescription should read:—

Plumbi acet. 3j.
Acet. destillat. 3j.
Sp. vin. methyl. 3ij.
Aq. ad 3xvj.

Misce; fiat lotio.

In your reprint the sign of the drachm is omitted.

Faithfully yours,

25 Clarendon Road,

Holland Park, W.

A. E. BARRETT.

[The accidental omission was corrected in most of our copies.]

B.P.C. Blue List, Question No. 8, Cascara Sagrada.

SIR,—I have a number of data and of results of observations bearing upon the answers to this interesting and important question, and purpose, in due time, laying them before the Conference.

The question is very comprehensive, and seeks to include information of a therapeutic character, which can only be authoritatively furnished by a qualified medical man. I shall be obliged to any of your readers who will furnish me with the names of gentlemen both able and willing to make the necessary observations, to whom I shall be most happy to furnish the necessary preparations of old (1888) and new (1889, and, in a short time, 1890) spring-collected bark and of bark collected in winter. Thanking you for the insertion of this letter, I remain, dear Sir,

Galen Works, New Cross Road, S.E., Yours faithfully,

June 17.

JOHN MOSS.

Chemists' Half-holiday in Dundee.

SIR,—I beg, through the medium of your journal, to say a word or two regarding the half-holiday question amongst Dundee chemists. It is a matter of regret to me to learn,

through the local press, that although the movement is practically unanimous amongst the other shopkeepers (nearly 900 of them shutting on Wednesdays at 3 P.M.), yet the chemists are still holding aloof; and this, I believe, is due to the action of one or two chemists in the centre of the city, who will not yield to the general wish of the remainder of the craft. That it was a complete success last year no one will gainsay, and I fail to see wherein matters have changed, unless it is that the weighty petition signed by the majority of medical practitioners in Dundee is this year wanting. I am aware that those who are said to be still holding out were against the movement then. All objections were, however, laid aside when the said petition was presented, all seeming anxious to please the doctors, and I think if the matter cannot be settled otherwise, the half-holiday committee should again wait on the doctors and ask their co-operation. It was heartily given last year, and I have no doubt that if again appealed to, these gentlemen will give the same support. I trust, however, that the movement will soon be quite unanimous, and this can easily be accomplished if those who are now holding out will not look so much to their own personal inconvenience in the matter. For by the action of even one man the whole assistants and apprentices are deprived of a great boon, and one which they are quite as much entitled to as the other shopkeepers in the city.

G. CUTHBERT HENDERSON.

Stornoway, Ross-shire, N.B.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Extracts and Phosphorus in Pill.

SIR,—What is the most elegant way of dispensing the following, which I have been troubled with quite frequently of late? The finished pill must not contain more than 4 grains of substance, as the prescriber insists on as small a pill as possible:—

Phosphorus	gr. 36
Ext. damianæ	gr. iij.
„ nucis vomic.	gr. 1
M. Ft. pil. ; mitte xxiv.	

R. W. P. (72/27.)

[Evaporate the extracts to dryness on a water-bath. Dissolve the phosphorus in two drops or so of carbon bisulphide, and mix with 10 grains of powdered liquorice and 4 drops of water. With this incorporate the extracts, and mass. Varnish the pills.]

What is Julep?

Potass. bicarb.	3iv.
Spt. ammon. aromat.	℥ 40
Aq. ad	3viiij.
M. Cujus capiat 3j. ter die cum 3ss. julep sequantis.	
Acid. citrici	3ij.
Aq. ad	3iij.
Misce. Fiat in julep 3iv.	

Yours, &c.,

EFFERVESCENCE. (72/24.)

[The intention in this case is to make the acid solution into a sweet mixture or julep. An ounce of syrup should be added.]

LEGAL QUERIES.

61/53. *J. L. D.*—We do not think it would be regarded as an infringement of the Veterinary Surgeons Act for a duly-qualified chemist to describe himself as a veterinary chemist. But we think the juxtaposition of the word “qualified” with the title as it appears in your circular might be regarded by a court as sufficient to justify a fine.

99/4. *Ajax.*—An employer is liable to a fine if he compel an apprentice (under 18) to work more than seventy-four hours in one week, including meal-times. He is not required to provide an apprentice with time for study.

68/25. *V. O. P.*—An unqualified partner in a business where the title “chemist and druggist” is used, or where a shop is kept open for the sale of poisons, is liable to a penalty even though his name may not appear in the style of the firm.

72/42. *Ignoramus.*—We know of no reason why you may not sell the ordinary fly-papers.

71/32. *D. D. C.*—We do not see that your landlord can compel you to keep your shutters up at night, unless he has reason to believe that by keeping them down the plate-glass insurance would be invalidated.

69/26. *M. A. A.*—You will find the details respecting the formation and registration of joint-stock companies in *THE CHEMISTS' AND DRUGGISTS' DIARY*, 1888, page 252.

72/34. *A Subscriber.*—We do not answer queries sent to us anonymously.

71/69. It would be legal to style the business “Executors of the late J. Blank, M.P.S.,” if Mr. Blank was M.P.S. There is a clause in the Patents Act, 1883, forbidding unauthorised persons to use the royal arms in connection with any business in such manner as to be calculated to lead other persons to believe the trade is being carried on under such authority. There is not much risk in using them on labels, but it is wiser to adopt some other ornament.

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulæ and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulæ or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

Correspondents who have made inquiries regarding the following subjects will find the information in the numbers indicated.

69/29. *Actum.*—Salad Dressing.—July 7, 1888, p. 32.

71/41. *Leander.*—Purification of Benzolene.—See page 303. Benzine is better for cleaning clothes, and, on the whole, cheaper.

71/69. *Maranta.*—Cochineal Colouring.—Aug. 11, 1887, page 191. Or dissolve $\frac{1}{4}$ oz. of carmine in an ounce of liquor potassæ, and add water to 1 pint.

104/8. *Lemon.*—Soluble Essence of Lemon.—Feb. 22, page 278.

66/27. *Anxious.*—There is no recognised formula for liq. plumbi acet. From $\frac{1}{2}$ to 1 oz. of sugar of lead to the pint is the common strength of hair-restorers.

66/56. *Tippoo Tib.*—(1) Oleum Ovarum is made from hard-boiled egg yolks. Crush the yolks small and percolate with methylated ether, which dissolves the oil. Recover the ether by distillation. The residue is the oil. (2) Ung. Iodi Decolorat. Iodide of potassium ointment would do as well as anything for this. (3) The Private Price-marks will be found in our issue of January 29, 1887, page 151. (4) See page 148 of current volume.

69/25. *Pharmacist.*—Simple Chemical Experiments.—The last few numbers in December, 1886, and the first one in January, 1887. There is no book which covers exactly the same ground.

64/63. *Delta*.—The plant you send is gout weed (*Algodium podagraria*).

71/19. *Viator*.—Your plant, which you say is known locally as gooseberry fuchsia, is *Ribes speciosum*, a shrub introduced into this country from California about sixty years ago.

67/49. *Qui Hago*.—Bird-lime or Christy's myocom fly-gum will answer to smear round the fruit-trees to catch the moths. There is nothing better than salt to kill weeds on the garden-paths.

66/70. *J. Clegg*.—Warrington's "Chemistry of the Farm" (Bradbury, Agnew & Co. 2s. 6d.).

67/50. *T. J. Jones*.—If you test your rectified spirit (see "Pharmaceutical Testing," page 138) we think you will find that it contains tannin. This is the only reason we can advance for your tinct. quininæ ammon. becoming brown. Omit the quinine and very likely you will get the same result.

65/65. *Perplexed*.—Refined.

69/32. *Sianco*.—A list of **Photographic Books** will be found in the **DIARY**, page 180.

100/6. *W. W.*—Tanner's "Index of Diseases." (Renshaw, 10s. 6d.)

70/25. *Assistant*.—Sodium permanganate is as efficient an oxidiser as the potassium salt.

70/13. *Douche*.—**Zinc Soziodol**—The makers of this state that it is soluble to the extent of 5 per cent. in water, which is the best solvent. Use warm water.

69/28. *W. A. B.*—We have not seen any satisfactory formulæ for neo-cyclostyle inks.

69/34. *Phenol*.—**Superfatted Soaps**.—Unna's formula (Dec. 28, 1889, p. 905) can readily be modified by reducing the amount of alkali or increasing the amount of olive oil. The fats which you have used are those which most readily become rancid. We can give you no details in addition to what we have already published. Presumably the makers who succeed in making a soap which does not become rancid in a month have gone through all the difficulties which you are now encountering, and have succeeded in overcoming them. Obviously it would be unbusinesslike of them to tell the world at large how it is done, but their success may be encouragement for you to persevere.

68/72. *Medicus*.—**Apothecaries' Art Examination**.—The following are suitable books: Colenso's "School Algebra" (Longmans, 1s. 6d.); Isbister's "First Steps to Euclid" (Longmans, 1s. 6d.); Todhunter's "Mechanics for Beginners" (Macmillan, 4s. 6d.); Roscoe's "Chemistry" (Macmillan, 4s. 6d.); and Balfour's "Elements of Botany" (Black, 3s. 6d.).

67/24. *F. C.*—**Refined Sugar**, whether obtained from beet or cane, should contain not less than 99 per cent. of crystallisable cane sugar, and not more than 0.2 per cent. of ash. Sugars obtained from the cane and the beet, if properly purified, are indistinguishable from each other. It sometimes happens that beet sugar is much purer than cane sugar. Glucose is not a common adulterant (that is, an added adulterant) of sugar; but, owing to imperfect purification, 2 per cent. of glucose may remain in it. The simplest

plan for estimating the amount of glucose, if the Pharmacopœia test shows that it is present in appreciable quantity, is to saturate methylated spirit with glucose, and wash a weighed quantity of the sugar with this spirit. Cane sugar dissolves, and the glucose is left. Dry the latter and weigh.

65/50. *Puzzled*.—You will find an account of the prescription in our issue of Nov. 5, 1887, page 593. Try a wholesale herbalist for the medicines.

68/37. *Reddish*.—See the article on dentistry in the **DIARY** for this year.

68/39. *A. Pereira*.—**To Extract Caffeine from Tea**.—Powder the tea, mix with a fifth of its weight of slaked lime, and moisten with hot water. Dry and percolate with methylated spirit. Evaporate the tincture until all the alcohol is driven off and a watery solution remains; acidify this slightly with dilute sulphuric acid, and extract the alkaloid with chloroform; or, after filtering, evaporate to a low bulk, allow to cool, and collect the crystals.

68/44. *A. B. S.*—A little tincture of matico or solution of perchloride of iron would stop the bleeding after you withdraw the hypodermic needle from the gum; but we question the advisability of doing this. It only wastes time, and you must act promptly after the cocaine has been injected, and its anæsthetic properties are manifested.

Toilet Cream.—In the formula for this given on page 805 last week, the quantity of salicylic acid intended is 60 grains.

71/27. *Timon*.—(1) We cannot give medical advice. (2) **Indian Brandy**.—If this preparation is sold by druggists for use as a beverage without a licence we should consider the law to be infringed, especially if brandy, instead of spirit, is used in making it.

66/42. *A. C.*—**Surgical Catgut**.—The best method of preparing this is the following:—The catgut is first well brushed with soft soap, then placed for twelve hours in ether, and then for a time in a 1 in 1,000 watery solution of corrosive sublimate. It is preserved in a solution composed of corrosive sublimate 1 part, glycerine 100 parts, absolute alcohol 900 parts. Before using, the gut should be placed in 1 in 1,000 watery solution of corrosive sublimate.

70/56. *Edina*.—A number of makers of pepsin porci advertise in this journal. Get samples from them, and compare them with the kind you wish to equal.

71/3. *Fides*.—It is not possible to determine why the emulsion separates and what causes it to ferment. You should address your inquiry to the maker of the article.

72/65. *W. G. T.*—**Books for Spectacle Trade**.—Hart-ridge's "Refraction of the Eye" (Churchill, 5s. 6d.). "The Eyes and Eyesight" (Ward, Lock & Co., 1s.).

65/60. *Borvil*.—Consult a medical book.

Information Supplied.

56/41. **Cyclists' Drink**.—I have found a mixture of lime-juice cordial and Caffyn's liquor carnis and cold water an excellent drink for cyclists and athletes. It keeps sweet, is refreshing, and possesses nutritive properties of a very high standard. Have ordered it a great deal this year, and have personally found it of great service.

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PURE NATURAL SALICYLIC ACID AND SALICYLATE OF SODIUM

FROM OIL OF WINTERGREEN.

Experimental Research as to the General Comparative Action of the Natural and Artificial Salicylic Acids, and their Salts of Sodium. Read in the Section of Pharmacology and Therapeutics at the Annual Meeting of the British Medical Association held in Leeds, August, 1889. By M. CHARTERIS, M.D., Professor of Therapeutics in the University of Glasgow, and W. MACLENNAN, M.B., C.M.

See *BRITISH MEDICAL JOURNAL*, Nov. 30, 1889.

The deductions from these experiments indicate that artificial salicylic acid and its salt of sodium are dangerous and, in large doses, fatal to animals, while salicin, natural salicylic acid, and its salts of sodium are not. That artificial salicylic acid contains an impurity or impurities, and until this or these can be extracted by the aid of chemistry the interal administration of it or its salts of sodium should be discountenanced. Large and repeated doses of the sodium salt are necessary in the treatment of acute rheumatism, and hence we may account for the restlessness, the confusion, and the delirium sometimes attendant on its use, which have been testified by clinical experience. It is more than probable, too, that the retarded convalescence occurring in some cases of acute rheumatism after the salicylate treatment is due to the great and protracted prostration which the impurity or impurities give rise to. It is to be remembered in connection with these symptoms that prescriptions of the salicylate of sodium are invariably made up, unless otherwise indicated, from the artificial and not the natural salt.

The specimens with which the investigations were carried on were supplied by T. MORSON & SON, London—the Natural Acid and its Soda Salt being manufactured by themselves.

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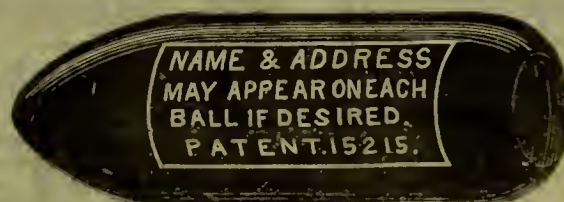
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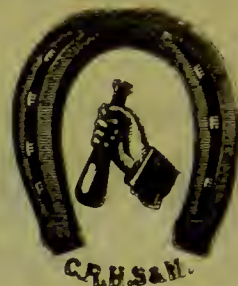
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Retail	Per doz	Retail	Per doz.	Retail	Per doz.	Retail	Per doz.
4/6..Alcool de Menthe Ricqlès	41/6	4/6..Capsules Matico	35/	9/..Laville's Gout Tincture	31/	2/9..Rabuteau's Syrup Ferrug.	24/6
2/9 Ditto ditto	21/	4/6.. " Mathey Oaylus	35/	9/.. " Pills	78/	4/0..Racahout des Arabes	31/
2/9..Anbergier's Syrup	27/	4/6..Chassaing's Wine	39/	1/14 Papier Fayard	6/9	4/6..Reynal's Bongies	38/
1/9.. " Pâté	15/	2/9.. " Pills	24/	2/3.. Ditto	13/6	2/9..Ricord's Injection	24/
6/8..Bay Rum	57/	4/6..Clin's Dragées Bromide Cam.	45/	2/3..Papier Fruneau	14/6	4/6.. " Capsules	36/
3/6.. Ditto	31/	5/..Eau de Botot (Genuine)	40/	4/.. Ditto	24/6	9/.. " Syrup	90/; 4/6; 42/
2/..Belloc's Charecoal	15/	3/.. Ditto	24/	1/9..Pâté d'Aubergier	15/	1/8..Star Paper	11/
1/9.. " Lozenges	15/	2/..Epic's Cigarettes	13/6	1/9.. " de Berthé	15/6	1/9..Vallet's Pills	14/6
4/8..Blancard's Pills	32/	4/6..Elixir de Coca (Mariani)	48/	2/9.. " de Coca Mariani	25/	2/9.. Ditto	23/
2/6.. Ditto	18/	2/9..Flon's Syrup	23/	1/9.. " de Georgé	14/6	4/6..Veloutine (White, Pink, Oim.)	28/
4/6..Bron's Injection	27/	..Gayetty's Paper		1/14 " Ditto	9/	3/6.. Ditto ditto	22/
4/6..Bugeand's Wine	36/	2/3..Granules Arsen. Acid	13/6	1/6.. " de Nafé	13/6	4/6..Valentine's Meat Juice	34/
3/6..Bully's Vinegar	30/	2/9.. " Iron	14/5	1/9.. " Regnaud	14/6		£19/10 gross.
2/.. Ditto	14/6	2/9.. " Soda	15/4	7/..Pierlot's Valerian	69/	2/9..Vichot's Trochisques	22/
4/8..Candé's (Lait Antéphilique)	36/	2/9..Grimault's Syrup Lime	24/	2/9..Rabuteau's Drgées Ferrug.	24/6	4/6..Vin Mariani	36/
4/6..Capsules Bromide Camph.	45/	2/3..Guyot's Liq. Goudron	18/	7/0.. " Elixir Ferrug.	65/		

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[1823.

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There is a minute amount of what is dissipated by the
heat of summer & which arises on the application of a
drop of water. Ambrecht's Coca Wine has a stimulant
effect in reviving & restoring the exhausted energies of
the human economy & its sustaining & strengthening
properties are marvellous
Yours &c. Allen
Lecturer on Anatomy & Physiology
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Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

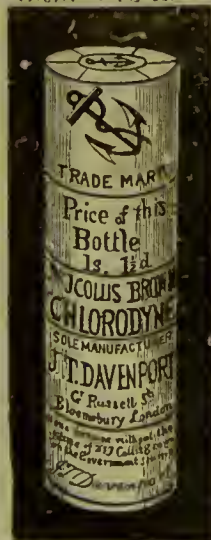
The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the Inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

ORIGINAL AND



ONLY GENUINE

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

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Allen, Hanbury & Co.,	"	Gale & Co.,	London	Newbery & Sons,	London
Baiss Brothers,	"	Giles & Son,	Clifton	Oldham, G., & Co.,	Dublin
Banks & Richards,	Birmingham	Goulding, Messrs.	Cork	Parsons & Richardson	Leicester
Barron, Harvey & Co.,	London	Gratton & Co.,	Belfast	Peake, Allen & Co.,	Dublin
Bell, John, & Co.,	"	Grimwade, Ridley,	London	Raines & Co.,	York
Bourne & Taylor,	"	Grindley & Son,	Chester	Raines & Co.,	Edinburgh
Corbyn & Co.,	"	Hearon, Squire & Francis,	London	Sang & Barker,	"
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sanger, J., & Sons,	London
Curling & Co.,	"	Hopkins & Williams,	"	Sim, James, & Co.,	Aberdeen
Curtis & Co.,	"	Hovenden, R., & Sons,	"	Smeeton, W.,	Leeds
Davy, M'Murdo & Co.,	"	Hunt & Co.,	Exeter	Sonthall & Co.,	Birmingham
Dobbin, W., & Co., Limited	Belfast	Hunt, A., & Co.,	"	Sutton, W., & Co.,	London
Drew, Barron & Co.,	London	Johnson, J. H. & S.,	Liverpool	Tomlinson, Hayward & Co.,	Lincoln
Drew, B., & Alexander,	"	Langton, W., & Co.,	London	Treacher, Hodgkinson & Co.,	London
Dunn & Company,	"	Lynch & Co.,	"	Westrup, J. B.,	Kensington
Edwards, W.,	"	Mander, Weaver,	Wolverhampton	Westwood & Hopkins,	London
Evans, Gadd & Co.,	Exeter	Marsden & Sons,	London	Woolley, James,	Manchester
Evans, Lescher & Webb,	London	Maw & Son,	"	Wyleys & Brown,	Coventry
Ferris & Co.,	Bristol	Meggesson & Co.,	"	Yates & Co.,	London
Foulger, S., & Son,	London	Mackay, John, & Co.,	Edinburgh		

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

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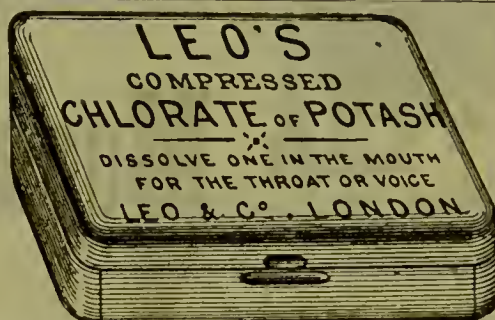
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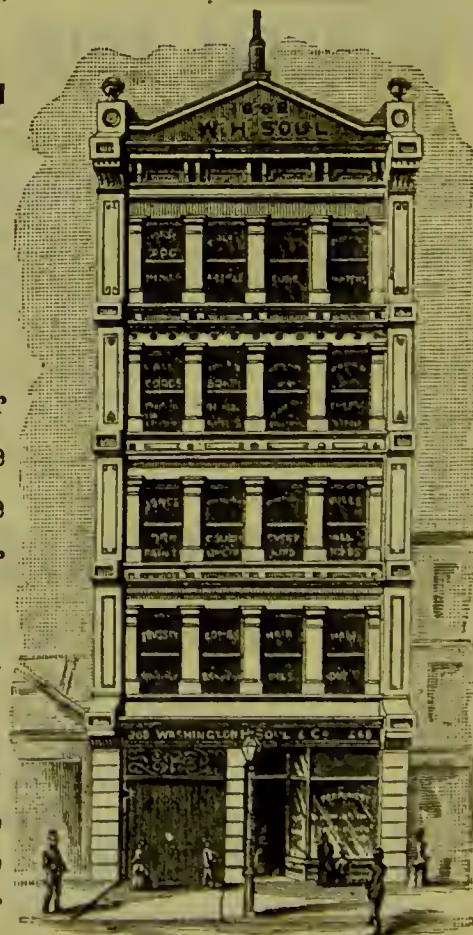
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ABSORBENT, OPEN WHITE, and GREY
BANDAGES,
SURGEON'S, AND CARBOLIZED
TOW.



FOR
LADIES
OF
FASHION

CRÈME SIMON À LA GLYCERINE.

MARVELLOUS FOR

Softening & Whitening the Complexion. Most efficacious for the Skin.

J. SIMON, 36 RUE DE PROVENCE, PARIS.

FOR SALE BY DRUGGISTS AND FANCY GOODS STORES.

SUPERIOR
TO
VASELINE
AND
CUCUMBERS



USED BY SURGEONS ALL
OVER THE WORLD.

In ONE WEEK three curious uses were reported for which
"THE LEICESTER" IMPROVED ADHESIVE PLASTER,
On Fine Flesh-coloured Cambric,

is found the best, after trying other makes (in the first case, nearly every known plaster). A well-known actor said he had the good fortune to meet with it in the South of England, and had inquired for it wherever he went since. It is the only plaster he can find to answer for fixing false hair, &c. A chemist in the North wrote and said a lady violinist would have nothing else; she uses it to make a pad to protect her fingers. A chemist in Yorkshire has a customer who uses plaster to keep his eyes open, and nothing will hold the lids up so well as "The Leicester" Improved Adhesive Plaster on Fine Flesh-coloured Cambric. Surgeons in all parts are frequently commending it. The Sale rapidly increases.

'EUREKA' TRUSSES

Circular, single, per dozen	12/	13/6	15/	17/6	21/
" double "	18/	21/	24/	27/	33/
" Scrotals " single	30/	36/	42/	—	—
" " double	42/	48/	54/	—	—

Fines quality made, and every other kind manufactured.

SPECIALITY—RED ENAMELLED SPRINGS,
Prevent Rust, 1/ per dozen extra.

EVERY SPRING GUARANTEED.

£10 10%, £20 15%, £30 20%, £50 25% discount

'Eureka' Trusses obtainable from all Wholesale
Houses, manufactured by

VINCENT WOOD,

3 St. Andrew Street, LONDON.

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BENSON'S PLASTERS

Will positively cure disease that other porous plasters or liniments will not even relieve. For Rheumatism, Sciatica, Pleurisy, Neuralgia, Kidney Affections, Backache, Lamé Back, Coughs, and all acute Nervous Pain it has no equal. Recommended, prescribed, and endorsed by the Medical Faculty of all Schools of Medicine as a great improvement on the slow action of the strengthening porous plaster.

SOLE MANUFACTURERS—

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21 PLATT STREET, NEW YORK.



BAILEY'S PATENT BRUSHES

The Latest Novelty is our
**RUBBER
COMPLEXION
BRUSH.**

PACKED IN A NEAT BOX.
Entirely does away with
poisonous cosmetics and
face-washers. Used in the
ordinary daily ablutions,
with a little soap, it makes
the skin beautifully fresh,
soft, and smooth, and effectually
eradicates all blemishes,
blotches, pimples, &c. Used
as a shampoo brush, gentlemen
will find it a most useful
adjunct to the toilet, as
it entirely removes scurf
and dandruff. Mothers and
nurses will find it invaluable
for bathing the delicate skin
of infants and children.

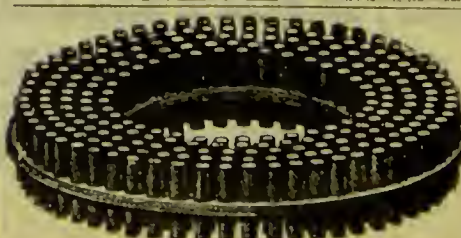
Bailey's New
Rubber Teething
Ring.

Is perfectly tasteless, and so
constructed that the flat-
ended teeth serve to expand
the skin of the gums, softening
the latter, and aiding the
coming tooth without
irritation.

PRICES—Bath Brushes,
42s. per dozen; Complexion
Brushes, 25s. per dozen;
Toilet Brushes, with handles,
2s. and 17s. per dozen;
Tooth Brushes, 6s. and 6s. 6d.
per dozen; Teething Rings,
3s. 6d. per dozen.

Of all Wholesale Houses,
or direct from the
Manufacturers,

DAVID MOSELEY & SONS,
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London, E.C.;
Manchester; Glasgow;
Brussels and Paris.



SURGICAL APPLIANCES.**TRUSSES.**

Common, Salmon & Ody's, Cole's, Moc-Main, Scro'al, and all other most approved principles made to order.



HAYWOODS SPIRAL ELASTIC
SURGICAL APPLIANCES



PATENT 4,682. (Seamless.)

**MAGNETIC BELTS AND APPLIANCES.**

Elastic Surgical Stockings, Knee Caps, &c.
Patent Spiral Seamless Elastic Stockings, &c.

Patent Pile Surgical Elastic Stockings.
Elastic Supports for Lawn Tennis, Cricket, Lacrosse, and other Athletic Sports.
Bath and Rubbing Gloves.
Bathing Caps and Belts.

Trusses of every description.

Poro-plastic Jackets.

Bandages — Indiarubber, Elastic, Lint, Cotton, Sayres', &c.

Chest Expanding Braces.

Horse Ear Caps & Veterinary Appliances.

Suspensory Bandages.

Ladies' and Gentlemen's Belts.

Hot Water Bottles and Covers, Respirators, Inhalers, Bronchitis Kettles, Throat Sprays, Waterproof Coats, Cloaks and Driving Aprons, Footballs, Shin Guards, and Athletic Appliances, Druggists' Sundries, Invalid and Nursery Appliances, &c.

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J. H. HAYWOOD, CASTLE GATE, NOTTINGHAM.

London Agent—HENRY C. QUELCH, St. Paul's Chambers, 19 Ludgate Hill.



Patent Pile, Protected, 14,618. The Pile lying over the Indiarubber Cords, protecting them and forming a smooth soft surface to the limb.

DR. JOHN FRANCIS CHURCHILL'S INHALANT

REGISTERED.

"SPIRONE"

TRADE MARK.

FOR THE TREATMENT AND CURE OF ALL

DISEASES OF THE LUNGS, WINDPIPE, NOSE, AND THROAT,

Claims to be a Specific for all Congestive and Inflammatory conditions of the Respiratory Apparatus, and will be found efficacious in

COUGHS AND COLDS, ASTHMA, BRONCHITIS,

Inflammation and Congestion of the Lungs, Pneumonia Pleurisy, Whooping Cough, Croup, Diphtheria, Pharyngitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice, Colds in the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

PREPARED ONLY BY THE INVENTOR.

Note Genuine except such as bears the above Trade Mark "SPIRONE" and the Signature of the Inventor upon the Bottles on the Label over the Cork, and on the Wrapper,

JOHN FRANCIS CHURCHILL, M.D. (Paris),

The Discoverer of the Specific Cure for Consumption, and of the Medicinal Properties of the Hypophosphites.

Price 4s. 6d. and 11s. per Bottle.

SET OF APPARATUS FOR ADMINISTRATION, 15/. PAMPHLETS AND SHOWCARDS FREE ON APPLICATION.

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A. ATTWOOD & CO.

ARE BONA-FIDE
MANUFACTURERS OF

LIFTS AND HOISTS.

WORKING BY
Gas-Engine,
Steam-Engine,
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Power.

FOR
Passengers,
Goods,
Luggage,
Dinners, &c.

Thorough
Efficiency
Guaranteed.

CONTRACTORS TO H.M. WAR OFFICE
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Sole Licensees for Manufacture and Sale of McFerran's Improved
Automatic Machinery for Making
COMPRESSED TABLETS
Of various shapes and sizes, from 1 gr. upwards.
Experts sent to fix and start Machines. Write for particulars and prices.
MOULDS FOR CAPSULE MAKING. Machines Manufactured to Contract for Inventors & Merchants

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Engineers, Tool Makers, and Machinists,
TOMLINSON STREET WORKS,
HULME, MANCHESTER.

GARDNER'S

PATENT

"RAPID" SIFTER & MIXER

WILL BE EXHIBITED,

STAND 163,

Machinery in Motion Department,
ROYAL SHOW, PLYMOUTH
JUNE 21st to 27th.

INSPECTION INVITED:

WM. GARDNER,
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GLOUCESTER.



DISPENSING BOTTLES & PHIALS

The following are our present Greatly Reduced Prices for not
less than 3 gross of assorted sizes:—

Per Gross.		Per Gross	
6 & 8 oz., Plain or Graduated	8/6	1-oz. Phials	3/6
3 & 4 oz. " "	7/6	1-oz. "	3/9
12-oz. " "	12/-	1 1/2-oz. "	4/6
		2-oz. "	5/3

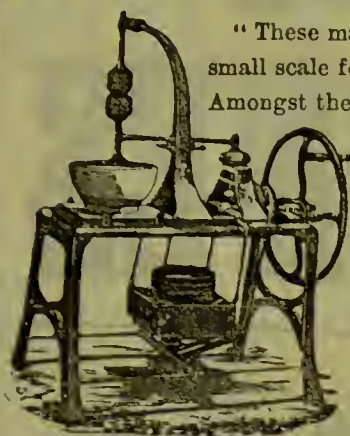
Packages, 1/ each, allowed for if returned.

I. ISAACS & CO.

GLASS BOTTLE MANUFACTURERS.

25 Francis St., Tottenham Court Road } **LONDON.**
153 Upper Thames Street

BANKERS: LONDON AND WESTMINSTER BANK.

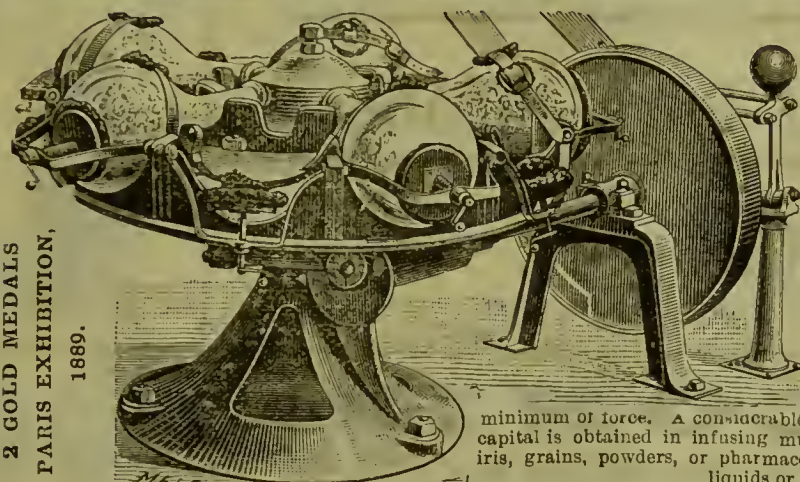
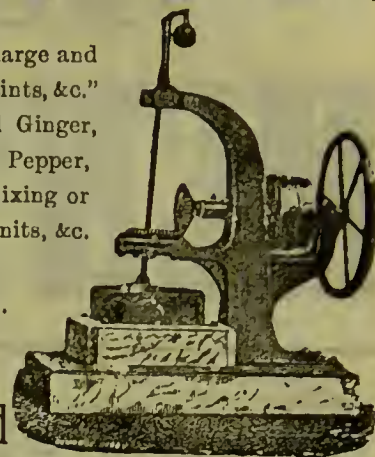
GOODALL'S PATENT GRINDING & LEVIGATING MACHINES.

"These machines have for many years proved most serviceable on a large and small scale for Grinding, Levigating, and Mixing Powders, Pill Masses, Paints, &c." Amongst the articles which are readily ground by it may be mentioned Ginger, Seeds, Salts of all kinds, Cream of Tartar, Sugar, Cocoa, Pepper, Spice, Jalap, Rhubarb, Gums, Aloes, Barks, &c.; and for mixing or kneading Lozenges, Pill Masses, Glaziers' Putty, Bread, Biscuits, &c.

ILLUSTRATED PRICE LIST, with full particulars, sent free.

Prices from £8 10s. to £60.

E. F. GOODALL, Barton-under-Needwood



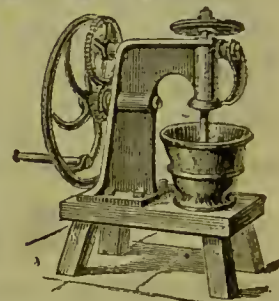
2 GOLD MEDALS
PARIS EXHIBITION,
1889.

BEYER FRÈRES,
16 & 18 RUE DE LORRAINE,
PARIS.

**NEW AGITATING
MACHINE**

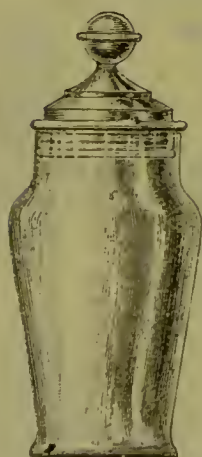
For macerating and exhausting raw materials in infusion with alcohol, producing 150,000 movements per day in each metal receptacle, with a minimum of force. A considerable economy of time, labour, and capital is obtained in infusing musk, amber, benjamin, civitte, iris, grains, powders, or pharmaceutical products treated with liquids or ether.

These machines are made for 10 or 15 bottles, each containing about 15 litres, as required.



MORTAR MILL, HAND POWER.

**NEW PATENT
AIR-TIGHT CHEMIST JAR.**

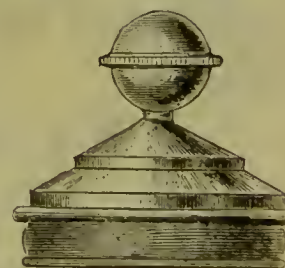


A slight turn of the knob presses the indiarubber Band against the glass, and renders the vessel absolutely air-tight. The Stopper is made of pure Nickel, of handsome shape.

INVALUABLE FOR SHOW BOTTLES, CHEMISTS, CONFECTIONERS, &c.

Samples and Prices of all Chemists' Sundriesmen.

C. MELIN,
37 CRUTCHED FRIARS, MARK LANE, E.C.



Section of the Nickel Stopper when closed.



AUSTIN & CO.

Patentees and Manufacturers of FANCY CARD

ROUND, OVAL, AND SQUARE SHAPED BOXES

FOR POSTAL AND GENERAL PURPOSES.

ALSO PATENT BARREL PACKAGES WITH METAL ENDS, FOR DRY GOODS,

AND

Makers of best class of Violet Powder Boxes, and high-class goods of every description for Perfumery, &c.

8 GREVILLE ST., HATTON GARDEN, LONDON, E.C.

"ACME" BRAND MENTHOL CONES



88

We guarantee every Cone to
be made of Pure Japanese
Menthol only.



161

1d. CONES.

No. 219.—3 dozen on attractive card, each Cone fastened to card by a Nickel-plated Staple, and will be found the biggest Cone in the market.

6/- PER GROSS.

2d. CONES.

202/S.—Polished Willow Boxes, Bullet Shape	...	...	...	...	12/	per gross.
201/S.—" " " Barrel Shape	...	...	...	...	12/	"
206/S.—" " " Cone Shape	...	...	...	...	12/	"

THE 2d. CONES ALL ON TWO DOZEN CARDS.

3d. CONES.

207/S.—Polished Willow Boxes, Draughtsman Shape	18/	per gross.
---	-----	-----	-----	------------	------------

BEST QUALITY BOXES. NEW PATTERNS, SPECIALLY SALEABLE.

No. *217F.—Glass Show Bottle, with foot, as fig. 88	...	...	...	...	...	1/8	per dozen.
No. *217A.—" " " " " " 161	...	...	...	...	...	3/	"
No. *214A.—" " " " " " 161. This has a very large Cone	...	...	...	...	...	4/3	"
No. 220.—Cone Shape, each in slide box, 1 doz in Outer, extra size	...	...	...	...	...	4/3	"
No. *221.—Large Flat Draughtsman, very large Cone (120 grains)...	...	...	...	...	...	4/9	"
No. 222.—Elegantly cut Show Glass Bottles, 3 cuttings	...	...	...	...	...	9/	"
No. 224.—Enamelled Tin Box, with Printing on box, 30 grain Cone	...	...	...	...	...	1/6	"

HOCKIN, WILSON & CO.,
13 to 16 New Inn Yard, 186a Tottenham Court Road, LONDON, W.

SHIRLEY'S "A1" MENTHOL CONES.

NEW AND SALEABLE PATTERNS.



No. 34.

No. 34. — 6d. Apple Shape ... No. 35. — 6d. Pear Shape... 3/9 doz.
 „ 34L — 1s. „ ... „ 35L — 1s. „ ... 6/6 „
 Above can be had assorted, 1 doz. in glass-top box, and are very pretty and attractive goods.

BOXWOODS.

No. 112. — Draughtsman	3/3
„ 113. — Cartridge	3/6
„ 8p. — 6d. Acorn	3/6
„ 111. — 1s. „	6/6
„ 17p. — 1s. Flat Shape	5/-
„ 9cr. — 1s. Reversible	5/-



1d. Lines. 3 dozen on Card.	
No. 110. — Bottle Shape....	6/6 gross.
„ 110v. — Vase „	7/- „
„ 110r. — Reversible Shape 7/- „	
„ 110ev. — Pedestal „	7/- „
2d.	
No. 114. — Varnished Vase..	16/- gross.
„ 114r. — „ Pedestal 16/- „	
3d.	
No. 115. — Draughtsman ..	20/- gross.
„ 23. — Barrel	20/- „



No. 35.

SPECIAL QUOTATIONS TO LARGE BUYERS

THE BEST 2/6 SPRAY EVER OFFERED TO THE TRADE.

No. 32. — This Spray is in assorted coloured glass, with sprays of grass and flowers thereon, and is fitted with a double black ball, making it altogether a splendid 2/6 line. Price per dozen, 22/-. Please order at once to secure immediate delivery.

No. 4. — Cut-glass Globe, double ball	39/- dozen.
„ 30 — Assorted Coloured Glass, double ball, with butterfly and flowers, and gold mount	39/- „
„ 19 — Plain Glass, vulcanite mount, double ball	14/- „
„ 26. — Moulded Glass, vulcanite mount, double ball, larger	21/- „

A LARGE AND VARIED ASSORTMENT IN STOCK.



INEXHAUSTIBLE READY SCENTED, 2/2 per lb.



Nos. 188-9.

Nos. 168-9. — In Cut-glass Watch Bottles	4/- dozen	... 45/- gross.
No. 188. — In Peacock Blue Globe Stoppered Bottles	3/9 „	... 40/- „
No. 189. — „ „ „ „	7/- „	... 72/- „



Nos. 168-9.

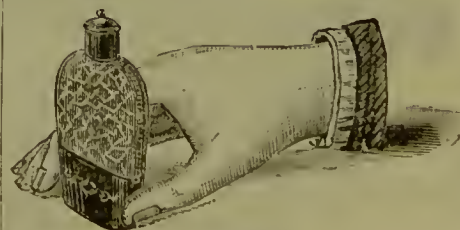
No. 187 is a China Bottle, flask shape, the china being coloured in imitation of Crocodile Leather. It is fitted with a china stopper, silvered over, making a very saleable line.

Filled with "Everfresh" Salts	4/- dozen	.. 40/- gross	} 33 dozen Fmp'y 32/- gross
„ Ammonia and Sponge	3/9 „	.. 37/- „	

In order to assist sales, a China Hand, as per illustration, is given away to buyers of 6 dozen No. 187 Bottle. The hand is holding a sample bottle of No. 187, filled with "Everfresh" Salts, which can be placed on the counter or in the window. These hands could also readily be sold to the public as an ornament to the table or mantelpiece, and to buyers of "Everfresh" Salts would be supplied at 6s. dozen filled, to non-buyers 9s. dozen.



No. 187.



"A1" FLEXIBLE GELATINE CAPSULES.

Guaranteed to contain Perfectly Pure Drugs.

No. 25. Copaiba Balsam ...	3 doz. in oval box	... 6/-	These Goods are well put up and attractively labelled, and bear no name beyond the "A1" Trade Mark.
No. 25A. „ „ „	1 1/2 „ „	... 3/6	
No. 49. English Santal Oil ...	2 „ round „	... 15/-	
No. 5. Cascara Sagrada ...	2 „ „	... 8/-	
No. 32. Copaiba, Cubebs, and Matico, 3 „	oval	... 12/-	

SEND FOR COMPLETE LIST SHOWING STRENGTHS, PRICES LOOSE, &c., &c.



ARTHUR W. SHIRLEY, 55 FARRINGTON ROAD, LONDON, E.C.

FOR ALL CANINE AILMENTS. SPRATTS PATENT, LIMITED, DOG MEDICINES.

Pamphlets on Canine Diseases for gratuitous distribution. Show Cards and Handbills Supplied.

Address: **SPRATTS PATENT, LIMITED, LONDON, S.E.**
SPRATTS PATENT (AMERICA) LIMITED, 239 to 245 East 56th Street, NEW YORK, U.S.A.
OR YOUR WHOLESALE HOUSE.

"WORTH ITS WEIGHT IN GOLD"

BRAGGI'S OINTMENT AND PLAISTERS.

A CERTAIN and SPEEDY CURE for
SPRAINS, BRUISES, BURNS, WOUNDS, BOILS,
SCIATICA, ECZEMA, PILES,

And "the thousand ills which flesh is heir to."

HUNDREDS OF TESTIMONIALS FROM WELL-KNOWN PERSONS.

Ask your Chemist for the OINTMENT or PLASTER, and

DON'T BE PUT OFF WITH ANY OTHER.

Sold everywhere, 1/1½. Post free for 15 Stamps.

P. BRAGGI & CO., Ltd., 92 Bartholomew Close, London, E.C.

REGISTERED



TRADE MARK

Prices 1s., 2s., and 4s. per Tin. Sold by Wholesale Druggists.

PETERMAN'S COCKROACH & BEETLE FOOD.

The Editor of THE CHEMIST AND DRUGGIST says:—
"Peterman's Cockroach and Beetle Food, an article of American origin, but now supplied from the London Depot at 57 Farringdon Road, has proved singularly successful in two houses occupied by members of our staff. The Beetles seem to like it, but it is their last meal."

ALSO PETERMAN'S

BED BUG LIQUID POISON,

Antidote on the bottle—sure to kill all Bugs upon two applications.

Price 6d. per Bottle. Sold by the Pint, Quart, or Gallon.

AGENTS—H. F. SNOW, 8 Boulevard de Sebastopol, Paris, France;
WILLIAM PETERMAN (Prop.), 6 East 14th St., N.Y., U.S.A.

J. F. SHOREY, Manufacturing Chemist,
57 FARRINGDON ROAD, LONDON, E.C.

ESTABLISHED
1840.

DAY & SONS' WORLD-FAMED HORSE & CATTLE MEDICINES.

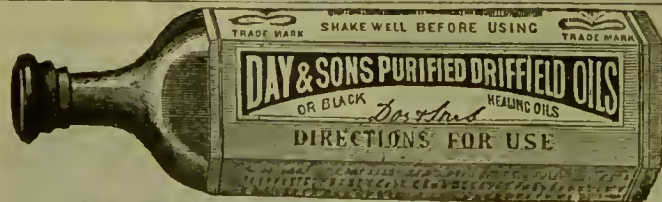
AWARDED
40
PRIZE
MEDALS.

LARGEST SALE IN THE WORLD.



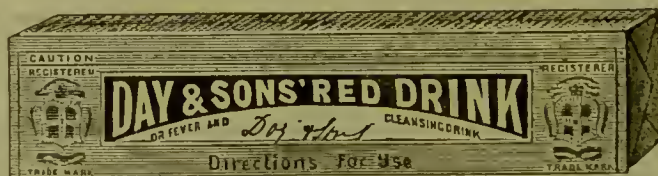
FOR Colic or Gripes in Horses and Cattle.
FOR Debility and Chills in all Stock.
FOR Scour in Calves and Lambs.
FOR Hoven or Blown Cattle and Sheep.
FOR Shivering Fits in Horses.
FOR Weakness after Lambing or Calving.

PRICE—10/ PER HALF-DOZEN, OR 19/ PER DOZ. BOTTLES.



FOR Healing all Wounds in all Animals.
FOR Kicks, Stake Wounds, Broken Knees in Horses.
FOR Cracked Heels and Saddle Galls in Horses.
FOR Sore Teats and Swollen Udders in Cows and Ewes.
FOR Dressing and Anointing in Lambing and Calving.
FOR Every Horse-keeper, Farmer, and Shepherd.

PRICE—2/6 PER BOTTLE.



FOR Fevers, Yellows, Indigestion, and Dulness
FOR Red Water, Costiveness, and Mawbound.
FOR Disordered System in Cattle.
FOR Bad Cleansing after Calving.
FOR Preventing Milk Fever and Inflammation.
FOR Purifying and Increasing the Milk.

PRICE—12/ PER DOZEN PACKETS.



FOR Ill Condition, Off Appetite, Disordered System.
FOR Heat-lumps, Itching, and Sourvy Skin.
FOR Hibeound, Bad Water, and Blood Ailments.
FOR Coughs, Colds, Sore Throats, and Fevers in Horses.

IN OANISTERS. PRICE—3/6, 7/, 14/, AND 21/.

THE "ORIGINAL" UNIVERSAL MEDICINE CHEST, £2 4s. and £5. FOR ALL DISORDERS OF HORSES, CATTLE AND SHEEP.

Only Prepared by the Inventors, **DAY & SONS, Crewe, Cheshire, ENGLAND.**

Exporters are invited to apply for term.. Liberal Discount offered.

HAMILTON & CO.'S SHEEP DIP.

Concentrated Non-poisonous Soluble Fluid.



1 gallon will dip 100 Sheep.

PER 5s. GALLON (drums free).

Special Terms and Discounts to the Trade.

Also Poisonous Powder Dip in packets. Paste Dip, or Warbles Smear.

The Trade supplied at most liberal terms, without name if desired. [1]

HAMILTON & CO., WANDSWORTH, LONDON.

DESTRUCTION OF RATS, &c.

STEINER'S VERMIN PASTE

REGISTERED.

Is used in
Australia,
New Zealand,
West Indies,
India,
Cape,
etc., etc.



Is a Sure and Certain Destroyer of

RATS, COCKROACHES, MICE, AND BLACKBEETLES.
IT NEVER FAILS!!!

The great strength of Steiner's Paste is not impaired in hot climates.
Sold in 3d., 6d., and 1s. Glass Jars, and 2s. 6d. Tins.

Wholesale and Export at the

WORKS, HENRY ST., LIMEHOUSE, LONDON.

ASK YOUR CHEMIST FOR IT.

Established 1868.



Used on the Royal Farms at Windsor, Osborne, and Sandringham, and by the principal Stockbreeders everywhere for nearly 60 years.



DAY, SON & HEWITT'S HORSE, CATTLE, AND SHEEP MEDICINES.

THE CHEMICAL EXTRACT.

For assuaging pain and inflammation in all wounds, saddle galls, strains, bruises, swellings, and relaxed tendons in Horses. For paining after calving and lambing, and for swollen udders and sore feet.

2s. 6d. per Bottle; 1-dozen Box, 7s. 6d.

THE RED DRENCH.

Celebrated for inflammatory disorders, such as fevers, pleurisy, foot-and-mouth complaints, yellows, surfeit, and red-water. Also for difficult calving and lambing. Admirably adapted for cleansing and checking feverish symptoms in Cows and Ewes after a bad time of parturition.

For Sheep, 3s. 6d.; for Cattle, 13s. per dozen Box.

THE GASEOUS FLUID.

Unmatched for colic or gripes and debility in Horses, for colds, chills, shivering fits, flux and diarrhoea in Cattle, Calves, and Sheep. For Ewes weakly after lambing and blown Cattle and Sheep, its effects are marvellous.

20s. per dozen Box.

THE GASEODYNE.

Used as laudanum in uncontrollable spasmodic pains and violent bowel complaints. Invaluable for parturition in Mares, Cows, and Ewes.

3s. 6d. per Bottle; 1-dozen Box, 10s. 6d.

THE RED PASTE BALLS and RED POWDERS.

For ill-conditioned Horses and Colts; invaluable after hard hunting or driving. For coughs, colds, staring coat, itching, swollen legs and want of strength. The powder given in the feed will produce fine appetite and tone.

7s. 6d. per dozen; 3-dozen Box, 21s.

THE BLACK PHYSIC BALLS.

These Balls are matchless for thoroughly cleansing the system of all impurities, and for assisting in the expulsion of Worms. Their purgative action soon relieves Costiveness of the Bowels, and checks all Feverish Symptoms arising from gross habit.

Price, 8s. per dozen; Box containing 3 dozen, 23s.

THE BRONCHOLINE.

The great and reliable remedy for Husk or Hoarse in Cattle, Heifers, Calves, and Sheep. Its gaseous odour destroys the worm or parasite in the windpipe, removes the hard cough, and soothes the lungs and other organs.

2s. 6d. per Bottle; 1-dozen Box, 7s. 6d.

THE "KEY TO FARRIERY."

A small work published by us on the general ailments of stock, their treatment and cure.

Large Edition, in Cloth, 2s. 6d.; Small Edition, 1s.

The Stockbreeder's Medicine Chest.	No. 1 contains a complete assortment of all our preparations for treating diseases of stock generally,	£6 8 0
The Stockbreeder's Medicine Chest.	No. 2 is suitable for ordinary Farm use, and contains a useful selection of the above Medicines	2 18 0
The Horsekeeper's Medicine Chest.	No. 3 is arranged for large Horse Owners, Collieries, &c., and contains 12 specially selected Medicines	6 6 8
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Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, LONDON, W.

LIBERAL DISCOUNT TO FOREIGN BUYERS.

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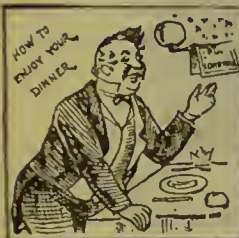
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If any Chemist advise me of the fact that he Stocks it (no-
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It is USED and RECOMMENDED by HOLBEIN, KEEN,
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(PATENT DATED AUGUST 5, 1887, No. 10781.)

TO CHEMISTS AND DRUGGISTS.

Do not hesitate to handle these because you have a stock of the others; poisonous fly papers will always be used by some people, but you must know that a large number of your customers want a sticky sort of thing, and have readily bought the not altogether satisfactory article hawked about the streets. The trade in Sticky Fly Papers over the counter is already one of great magnitude, and well worth attention. **TEN** times the number of people use them, and inasmuch as the papers are so immediately covered over with flies, quite **TEN** times the number of papers are used.

A notable improvement has been effected by the inventor, who has succeeded in masking the odour which was hitherto perceptible on opening; the very greatest care is taken in spreading, so that no excess of coating shall show itself outside the papers, ensuring their being thoroughly clean to handle, and fit to be sold in the best establishments.

The season is now quite on, and you should procure at once, and send a sample to your neighbouring butchers, bakers, confectioners, grocers, &c.

Stamp your name upon each, and presently you will find a large volume of trade to be the result.

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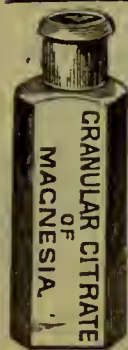
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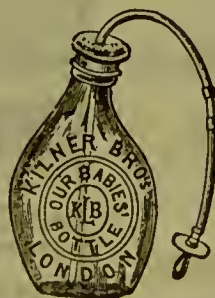


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FIRST ORDER OF MERIT,
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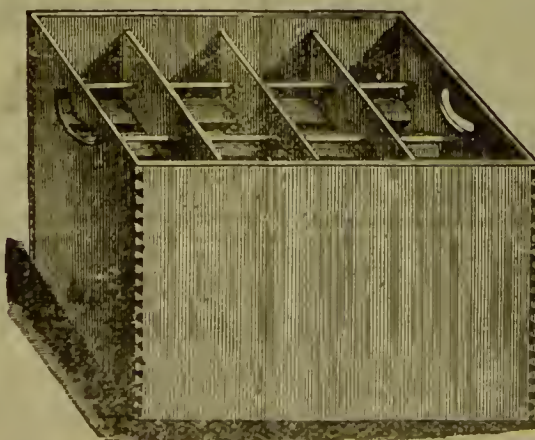
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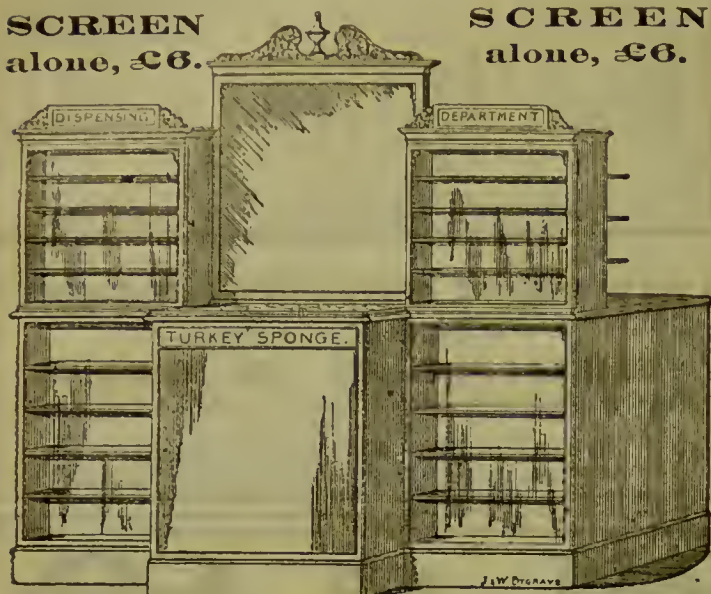
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alone, £6.SCREEN
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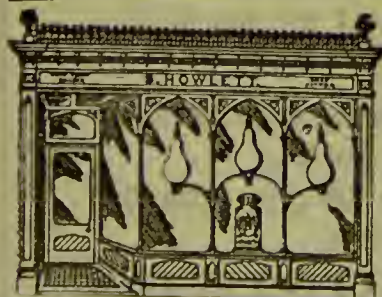
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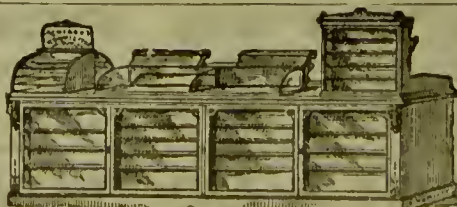
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